VacCiencia

FINLAY EDICIONES

Boletín Científico

No. 7 (13-24 marzo/2025)

EN ESTE NÚMERO

VacCiencia es una publicación dirigida a investigadores y especialistas dedicados a la vacunología y temas afines, con el ojetivo de serle útil.

Usted puede realizar sugerencias sobre los contenidos y de esa forma crear una retroalimentación que nos permita acercarnos más a sus necesidades de información.

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Noticias en la Web

Revolutionizing Meningitis Prevention: Breakthrough Vaccine Study in Africa

Mar 13. Innovations in Meningococcal Vaccination: A New Frontier in Preventing Invasive Disease in Africa

Recent clinical trials highlight the promise of novel meningococcal conjugate vaccines, affirming their safety and immunogenicity while addressing the critical need to prevent invasive meningococcal disease in Africa. A phase 3, double-blind, randomized, controlled non-inferiority trial conducted in Mali provides essential insights for the integration of the pentavalent NmCV-5 vaccine within the Expanded Program on Immunization (EPI).

This pivotal trial conducted in Mali—a core region of the African meningitis belt—offers crucial evidence for infectious disease specialists and global health practitioners. Demonstrating robust immunogenicity and safe co-administration with routine childhood vaccines, the study sets the stage for transformative changes in immunization practices in high-risk areas.

This forward-thinking approach harmonizes with contemporary strategies in meningococcal vaccination and addresses pressing public health challenges. For infectious disease experts and global health advocates, integrating such cutting-edge vaccine formulations into existing immunization programs promises heightened defense against invasive meningococcal disease.

Robust Immunogenicity of NmCV-5

The phase 3, double-blind, randomized, controlled non-inferiority trial in Mali revealed that children receiving the pentavalent NmCV-5 vaccine at 9 and 15 months of age showed immune responses comparable to those elicited by licensed alternatives such as MenACWY-TT. The trial's meticulous design and controlled comparisons emphasize the strong immunogenicity of NmCV-5.

These findings are pivotal, substantiating that the new vaccine candidate can seamlessly integrate into routine immunization schedules. Comprehensive results from the trial are accessible through the World Health Organization, showcasing the vaccine's equivalency to established options.

Safe Co-administration with Routine Vaccines

The trial also assessed the co-administration of NmCV-5 with standard childhood immunizations, including measles, rubella, and yellow fever vaccines. The evidence confirms that concurrent administration does not compromise the immunogenicity of any involved vaccines.

Clinical data affirm that integrating NmCV-5 with routine vaccines preserves both safety and efficacy, thereby optimizing immunization schedules in high-burden regions. Further insights on this safe co-administration approach can be explored in BMJ Global Health, which supports these favorable findings.

Transforming Immunization in Africa

The challenges prevalent in the African meningitis belt call for innovative vaccine strategies. Conducted in Mali, the trial underscores the urgency of implementing potent interventions to safeguard vulnerable populations against invasive meningococcal disease.

Incorporating NmCV-5 into the Expanded Program on Immunization could substantially reduce disease incidence in high-risk locales. The promising trial data not only deepen our understanding of vaccine safety and immunogenicity but also chart a transformative course forward—strongly backed by World Health Organization guidelines.

Conclusion

The extensive evidence from this phase 3 trial emphasizes the transformative potential of the pentavalent NmCV-5 vaccine in revolutionizing meningococcal vaccination efforts in Africa. Its strong immunogenicity profile and safe co-administration with routine vaccines establish a solid foundation for broader application, particularly within the Expanded Program on Immunization.

For clinicians and global health experts, these findings instill renewed assurance in vaccine safety and make a compelling case for incorporating advanced immunization strategies into public health campaigns across high-risk areas.

Fuente: ReachMD. Disponible en https://n9.cl/jw4gt4

Recombinant BCG Vaccine Becomes Available in the U.S.

Mar 13. The Bacillus Calmette-Guérin (BCG) is one of the most widely used vaccines worldwide, with about 4 billion doses administered over the past 100 years.

However, BCG is a biologic drug that uses benign bacteria, which makes it more complicated to manufacture than other drugs. This production limitation has led to decades-long vaccine shortages.

It has also been found to offer limited protection against diseases such as tuberculosis, an expanding health risk.

To resolve these shortcomings, ImmunityBio, Inc., today announced that U.S. Urology Partners, one of the nation's largest independent providers of urology and related specialty services, is one of the first providers to participate in ImmunityBio's Expanded Access Program (EAP) for the recombinant Bacillus Calmette-Guérin (rBCG) vaccine.

Serum Institute of India (SII), the largest manufacturer of BCG vaccines globally, has partnered with ImmunityBio to make this vaccine. Also, two gene modifications have been implemented in rBCG to improve its immunogenicity and safety compared to earlier strains and formulations of BCG.

Previously, Merck's TICE® BCG was the only vaccine available in the U.S., primarily used to prevent TB in children. Healthcare providers unable to source TICE BCG can access rBCG through the ImmunityBio EAP.

"It is gratifying to see the rapid uptake and interest in the rBCG EAP, which was authorized recently by the FDA," commented Dr. Patrick Soon-Shiong, Founder, Executive Chairman, and Global Chief Scientific Medical Officer of ImmunityBio, in a press release on March 13, 2025.

"Participation by a major national provider like U.S. Urology Partners is a testament to the critical importance of rBCG and the need for an alternative supply of this essential medicine."

Supply shortages of TICE BCG become a significant impediment to the treatment of bladder cancer patients. In a recent survey of 100 U.S. urologists, 57% indicated they could not treat patients in the last 12 months due to a lack of access to TICE BCG.

The SII is the world's largest vaccine manufacturer by volume. In European bladder cancer clinical trials, the rBCG vaccine (TUBERVAC-rBCG) demonstrated potent immunogenicity with CD8+ and CD4+ T cell stimulation and improved safety compared to earlier BCG strains and formulations. It was approved in Europe in 2023.

rBCG vaccination induces an immune response in the bladder near the cancer cells, leading to cancer clearance in many patients.

Other countries, such as Brazil, are evaluating rBCG vaccines for use with children.

ImmunityBio has been awarded multiple patents covering the composition and methods of use for the combination of BCG plus ANKTIVA® in bladder cancer, which the U.S. FDA has approved.

In a 2024 study, ANKTIVA, in combination with BCG, achieved a 71% complete response rate in bladder cancer therapy.

Fuente: Vax Before Travel. Disponible en https://n9.cl/noeegy

Dengue jab trial to begin in Thailand

Mar 15. The Ministry of Public Health will launch a dengue vaccination trial in Nakhon Phanom province next month. If successful, the vaccine will be included in the universal healthcare scheme, says Minister Somsak Thepsutin.

Mr Somsak, who chaired the National Communicable Disease Committee's meeting on Monday, said the committee agreed to launch a study into dengue fever vaccinations in children, hoping it will help to decide whether the vaccine is worth investing in as part of universal healthcare benefits.

Even though the number of dengue patients in Thailand is generally falling, the mortality rate remains high.

The study on dengue vaccinations will be conducted for three years on 30,000 children aged seven to 10, Mr Somsak said.

The vaccination will be piloted in Nakhon Phanom on April 4 before expanding to Ayutthaya.

Dengue fever is one of a handful of major communicable diseases the committee is working to control. The others are influenza, monkey pox, and Hepatitis B and C.

Responding to the rise in influenza infections, with 165,333 cases and 14 fatalities reported this year, the committee also agreed to increase the national stock of influenza vaccine from 4.5 million to 6 million doses.

As most influenza outbreaks have been found in six provinces, namely Phayao, Lamphun, Chiang Rai, Phuket, Chiang Mai and Bangkok, as well as in schools, prisons and military clusters, extra doses will be allocated to these places accordingly.

Fuente: Bangkok Post. Disponible en https://lc.cx/ZqGyut

Uruguay's Health Ministry launches vax campaign

Mar 17. Uruguay's Public Health Ministry (MSP) launched its 2025 vaccination campaign, focusing on influenza, measles, and respiratory syncytial virus (RSV) to address seasonal and emerging health challenges, it was announced in Montevideo.

The flu vaccination campaign begins later this month to protect vulnerable groups, such as the elderly, young children, people with chronic illnesses, and healthcare workers, before the winter peak, aiming to reduce hospitalizations and severe complications. The vaccine is updated annually to match circulating strains, enhancing community immunity and preventing serious outcomes.

Additionally, the MSP urged the population to complete the two-dose measles vaccination schedule, particularly for children over 15 months, healthcare workers, and travelers to countries with active outbreaks (e.g., Argentina, Mexico, Canada), to prevent the reintroduction of measles in Uruguay, which has been eliminated in the region since 2016. High vaccination coverage (95% or more) is emphasized to maintain this status.

The campaign also includes RSV vaccination for women between 32 and 36 weeks pregnant to protect newborns from severe respiratory infections, reducing hospital burdens during peak viral seasons. This initiative, in place since 2023, reflects the MSP's use of recent scientific evidence to prioritize maternal and child health, it was explained.

Beyond vaccine distribution, the MSP is touring Departmental Health Directorates, starting in Canelones, to improve accessibility, monitor health services, and coordinate logistics. The campaign underscores the broader importance of vaccines in disease prevention, cost-effectiveness, health equity, and combating misinformation while reinforcing the MSP's role in public health through education, science, and management.

The flu vaccine reduces the risk of infection, hospitalization, and death, especially in vulnerable groups such as the elderly, young children, and people with chronic or immunosuppressed diseases, the MSP insisted. By reducing virus circulation, it strengthens collective immunity, indirectly protecting those who cannot be vaccinated. Its application in March-April anticipates the southern hemisphere's winter peak, ensuring timely protection.

The Ministry also underlined that measles is highly contagious and can cause serious complications (pneumonia, encephalitis). The recommendation of taking the second dose. The Americas were declared measles-free in 2016, but recent outbreaks require maintaining high vaccination coverage (95% or more) to sustain this achievement.

Administrating the RSV vaccine to pregnant women transfers antibodies to the fetus, reducing by up to 70% the risk of hospitalization due to RSV in the first six months of life. RSV is the leading cause of bronchiolitis and pneumonia in infants. This strategy complements other measures, such as the monoclonal antibody for premature infants.

The Uruguayan authorities further underlined the importance of vaccines in general with historical examples such as smallpox (eradicated in 1980) and the global reduction of polio. They also highlighted their cost-effectiveness ratio by reducing expenditures in treatments and hospitalizations, alleviating the burden on the healthcare systems. They also spoke against misinformation and myths, insisting that vaccines have decades of scientific evidence supporting their safety and efficacy.

Fuente: Merco Press. Disponible en https://n9.cl/r3bdc

El sistema de vacunación VNVC dona medio millón de dosis de vacuna contra el sarampión para combatir la epidemia

18 mar. El representante del Sistema de Vacunación VNVC, MSc. Dr. Nghiem Tran Dung, entregó 500.000 dosis de la vacuna contra el sarampión (MVVAC) a la viceministra de Salud, Nguyen Thi Lien Huong.

El 17 de marzo en Hanoi, justo después del envío urgente del Primer Ministro solicitando acelerar la vacunación contra el sarampión, el Sistema de Vacunación VNVC donó 500.000 dosis de vacuna contra el sarampión (MVVAC - Vietnam) al Ministerio de Salud para acelerar urgentemente la cobertura de vacunación contra el sarampión en todo el país, protegiendo la salud pública.

En la ceremonia de entrega de premios, el Dr. Nghiem Tran Dung, representante del Sistema de Vacunación de VNVC, afirmó que en los últimos ocho años, VNVC ha distribuido millones de dosis de vacunas seguras contra el sarampión, protegiendo así la salud de millones de niños y adultos.

Sin embargo, debido a las dificultades de la vacunación tras la pandemia de Covid-19, es posible que un gran número de niños y adultos no hayan sido completamente vacunados tanto en el programa ampliado de inmunización como en la vacunación en servicio. Esta podría ser también una de las razones por las que este año el sarampión ha tenido tantos casos graves, evoluciones complicadas y el riesgo de una epidemia como la actual.

Actualmente, VNVC cuenta con cerca de 220 centros de vacunación a nivel nacional con más de 4.000 líneas de vacunación. Sin embargo, para crear una cobertura vacunal rápida, es esencial la coordinación entre el Sistema de Vacunación VNVC y el Programa Ampliado de Inmunización (PAI) de las localidades. Por lo tanto, tan pronto como el Primer Ministro ordenó al Ministerio de Salud acelerar urgentemente la vacunación, VNVC estuvo lista para contribuir y donar una gran cantidad de vacunas contra el sarampión para apoyar al Ministerio de Salud en la vacunación rápida y la prevención de enfermedades para la comunidad.

"Esta actividad no solo demuestra nuestra responsabilidad social, sino también nuestro compromiso de unir fuerzas para combatir la epidemia y proteger la salud de millones de niños y familias vietnamitas de muchas maneras diferentes.

Anteriormente, en septiembre de 2024, miles de médicos y personal de VNVC participaron en la Campaña de Vacunación contra el Sarampión organizada por Ciudad Ho Chi Minh, aportando instalaciones, suministros médicos y movilizando personal para unirse a las fuerzas médicas de la ciudad para vacunar contra el sarampión", compartió el Dr. Nghiem Tran Dung.

En el evento, la viceministra de Salud, Nguyen Thi Lien Huong, en nombre del Ministerio de Salud, agradeció al Sistema de Vacunación VNVC por su apoyo.

Proporcionar una gran cantidad de vacunas en tan poco tiempo es un desafío para el Ministerio de Salud.

En ese contexto, el Ministerio de Salud ha recibido un valioso y oportuno apoyo de 500.000 dosis de vacuna contra el sarampión de VNVC. Esta cantidad de vacunas se puede entregar de inmediato a las localidades, lo que contribuye a acelerar la implementación de la campaña de vacunación contra el sarampión, de acuerdo con las instrucciones del Primer Ministro, declaró la viceministra Nguyen Thi Lien Huong, expresando su esperanza de que VNVC continúe acompañando al Ministerio de Salud en la implementación de la labor de vacunación en Vietnam.

Ese mismo día, el Sistema de Vacunación VNVC también lanzó la campaña nacional “Unámonos para prevenir el sarampión” para responder activamente a la dirección del Gobierno y el Ministerio de Salud. La campaña incluirá muchas actividades significativas para aumentar la conciencia pública sobre el sarampión, como seminarios y intercambios en línea para responder rápidamente a las preguntas de la gente sobre el sarampión y las epidemias de sarampión, al tiempo que fortalecerá la comunicación y movilizará a la gente para implementar medidas para prevenir y controlar el sarampión, y vacunar rápidamente a los niños y adultos de manera completa y según el cronograma de acuerdo con las instrucciones del sector de la salud.

VNVC lanzó la campaña “Unámonos para prevenir el sarampión” en todo el país para responder activamente a la dirección del Gobierno y el Ministerio de Salud.

En particular, VNVC también ha introducido rápidamente políticas para ayudar a las personas a obtener vacunas contra el sarampión a bajo costo, pagando más tarde a través de un programa de cuotas sin intereses con un plazo de hasta 12 meses, ayudando a las familias en circunstancias difíciles a poder seguir vacunando a sus hijos y familiares contra la enfermedad.

La Dra. Bach Thi Chinh, directora médica del Sistema de Vacunación VNVC, dijo que actualmente, en todo el país, VNVC ofrece una gama completa de vacunas contra el sarampión para niños a partir de los 6 meses de edad y adultos, incluidas MVVAC (Vietnam), Priorix (Bélgica) y MMR-II (EE. UU.). En el que MVVAC es una vacuna única contra el sarampión. MMR-II y Priorix son vacunas combinadas que previenen tres enfermedades: sarampión, paperas y rubéola en la misma inyección, mejorando la eficacia de la prevención de enfermedades y ahorrando costos de vacunación.

“En zonas de alto riesgo y epidemia, los niños vacunados con la vacuna contra el sarampión desde los 6 meses hasta los 9 meses de edad se consideran vacunados con dosis cero. Los niños deben seguir vacunándose con vacunas que contienen componentes preventivos del sarampión desde los 9 o 12 meses de edad, según el esquema de vacunación habitual”, añadió la Dra. Bach Thi Chinh.

El doctor Chinh dijo que además de las 500.000 dosis de vacunas donadas al Ministerio de Salud y participar activamente en las campañas de vacunación contra el sarampión en las localidades, VNVC también se esfuerza por suministrar completamente otras vacunas para niños y adultos en el contexto de desarrollos epidémicos complicados, como la vacuna contra la influenza, la vacuna neumocócica para prevenir la neumonía, la meningitis, la sepsis, la vacuna meningocócica del grupo B, la ACYW, la vacuna contra el dengue, la vacuna contra el herpes zóster.

En particular, VNVC siempre se esfuerza por implementar muchos programas de incentivos y apoyo financiero para ayudar a las personas, especialmente a las familias en circunstancias difíciles y áreas remotas, a tener un acceso más fácil a vacunas de alta calidad y una prevención efectiva de enfermedades a través de programas de incentivos, programas de "vacunar primero, pagar después", el 100% del interés es pagado por VNVC en nombre de los clientes.

Fuente: VIETNAM.VN. Disponible en https://n9.cl/x247m

Expertos de la OMS advierten de que los recortes de financiación crearán retrocesos en los programas de inmunización

18 mar. El Grupo de Expertos en Asesoramiento Estratégico sobre Inmunización (SAGE, por sus siglas en inglés) de la Organización Mundial de la Salud (OMS) ha advertido de que los recortes en financiación de programas de salud, principalmente por parte de Estados Unidos, pueden provocar un "retroceso" en los programas de vacunación en un momento en el que muchos países se están recuperando del impacto de la pandemia de COVID-19.

"Creo que la cuestión principal de los cuatro días de reuniones de SAGE ha sido la gran preocupación de sus miembros sobre el estado de la salud mundial, el estado de los recursos disponibles y el impacto que tendrá en los niños, adolescentes y adultos una reducción de los recursos destinados a implementar programas de vacunación, y avanzar hacia la erradicación, eliminación y control en países que se han comprometido durante décadas", ha expresado la directora Departamento de Inmunización, Vacunas y Productos Biológicos de la OMS, Kate O'Brien, durante una rueda de prensa.

En ese sentido, ha explicado que durante los últimos meses el mundo ha presenciado "diversos cambios" que han impactado "profundamente" en la salud, poniendo en peligro la sanidad mundial, incluidos los programas de vacunación, razón por la que los expertos han resaltado la "importante contribución" de la vacunación a la mejora tanto de la supervivencia como de la salud infantil mundial.

Los especialistas de SAGE han expresado su "profunda preocupación" por los recortes de financiación actuales, lo que podría crear "retrocesos" en los programas mundiales de inmunización, en vez de avanzar hacia los objetivos de la Agenda de Inmunización 2030, por lo que se ha propuesta aumentar la promoción de la vacunación, fortalecer un enfoque centrado en los países e intensificar la colaboración y las alianzas interinstitucionales.

Si bien los países de ingresos bajos y medianos están estableciendo metas específicas para alcanzar los objetivos de la AI2030, muchos de ellos aún cuentan con sistemas de datos que carecen de la "granularidad, el contexto, los matices o la perspicacia necesarios" para tomar las acciones necesarias para mejorar este tipo de programas.

LAS VACUNAS "SALVAN VIDAS"

O'Brien ha aseverado que las vacunas "salvan vidas" y que la interrupción de estos programas podría llevar a la muerte de entre 300.000 y 500.000 muertes adicionales cada año, razón por la que ha mostrado su esperanza de que Estados Unidos decida continuar participando en la salud global.

Durante la primera sesión de reuniones, SAGE ha señalado en un informe el "enorme impacto y los avances logrados" en materia de vacunación a nivel mundial en los últimos años, que ahora se enfrentan a "desafíos sin precedentes", como la cobertura de la vacuna contra el sarampión, la vigilancia de la enfermedad, las redes de laboratorios y la capacidad de respuesta a brotes, que se están viendo "gravemente afectadas" por los recortes presupuestarios.

Frente a ello, la Alianza Gavi lanzará en 2026 una estrategia para la introducción y ampliación de nuevas vacunas, fortalecer los programas nacionales, apoyar los procesos de optimización y priorización, garantizar la sostenibilidad, prestar apoyo personalizado y reducir el número de niños sin vacuna, cuya cifra ha aumentado en los últimos meses.

Otra de las prioridades de Gavi es avanzar en la iniciativa contra el virus del papiloma humano (VPH), que está "en vías" de inmunizar a 86 millones de niñas para este año; SAGE ha abordado el "positivo" informe de la Región del Sudeste Asiático por los éxitos en la ampliación de la vacunación contra el VPH.

PREOCUPACIÓN POR LA TRANSMISIÓN DE LA POLIO

La erradicación de la polio sigue siendo una prioridad, para lo que ha invertido 800 millones de dólares (unos 732 millones de euros) en vacunas antipoliomielíticas inactivadas; en relación a ello, SAGE ha mostrado su "profunda preocupación" por la continua transmisión de la polio en Pakistán y Afganistán, lamentando la "falta general de esfuerzos" para lograr cambios en las estrategias y erradicar el virus.

Asimismo, ha advertido sobre la circulación del poliovirus tipo 2 derivado de la vacuna y su expansión a nuevas zonas, incluidos países europeos, por lo que ha subrayado la "urgente necesidad"· de mejorar la cobertura de la inmunización sistemática y de que los niños que reciben dosis cero reciban dosis de refuerzo.

Este grupo de trabajo también ha destacado el resurgimiento del sarampión y la necesidad de tomar medidas "urgentes" para mitigar el riesgo de grandes brotes, que podrían empeorar si se continúan desviando recursos sanitarios.

Además, ha expresado su preocupación por la reducción de la financiación para los programas de control del virus de la inmunodeficiencia humana (VIH), lo que podría provocar un resurgimiento de estas infecciones y un aumento del número de personas que viven con VIH no diagnosticado o no controlado, que son particularmente vulnerables a la mpox grave.

En cuanto a mpox, el grupo de expertos ha recordado que, si bien se siguen notificando casos en todas las regiones de la OMS, está creciendo particularmente en África, donde hasta cinco países han iniciado programas de vacunación que, a pesar de los intentos por acelerarse, sufren problemas de suministro.

Es por ello por lo que han recordado que la OMS permite el uso no autorizado de una dosis única o una dosis fraccionada intradérmica de MVA-BN en situaciones de brotes con escasez de suministro.

VACUNACIÓN CONTRA EL NEUMOCOCO

El SAGE ha reafirmado que conseguir una alta cobertura con tres dosis de vacunas antineumocócicas conjugadas, utilizando un esquema 3p+0(2) o 2p+1(3), es la manera más eficaz de prevenir la enfermedad neumocócica infantil.

Aunque la OMS ya ha precalificado vacunas como PCV10 ('Synflorix', de GlaxoSmithKline) y PCV13 ('Prevenar13', de Pfizer), los expertos han asegurado que existe evidencia que respalda el uso de una tercera PCV10 precalificada por la OMS (Pneumosil, de Serum Institute of India) para la inmunización sistemática de lactantes, utilizando cualquiera de los dos esquemas recomendados de tres dosis.

Además, ha destacado la necesidad de establecer la capacidad de vigilancia neumocócica en los países de adopción temprana, pues "unos pocos centros de vigilancia representativos en cada región de la OMS" pueden generar evidencia real de la eficacia de las nuevas vacunas neumocócicas y las estrategias de dosificación alternativas.

Respecto a la varicela, el SAGE ha recomendado considerar el uso de vacunas con un esquema de dos dosis con un intervalo mínimo de cuatro semanas entre dosis para la prevención en niños, especialmente en poblaciones donde la varicela constituye un problema importante de salud pública.

Del mismo modo, ha aconsejado considerar la vacunación en poblaciones especiales, incluyendo ciertos grupos con riesgo de enfermedad grave como las inmunodeprimidas.

Los expertos también han recomendado el uso de la vacuna recombinante contra el herpes zóster en un esquema de dos dosis con un intervalo mínimo de dos meses entre dosis, para la prevención del herpes zóster en adultos mayores, personas con enfermedades crónicas e inmunodeprimidas, en países donde es un problema de salud pública "importante".

Fuente: Infobae. Disponible en https://n9.cl/vpq9k

La vacuna para la enfermedad neumocócica ofrece protección indirecta a neonatos no vacunados

19 mar. La vacuna conjugada neumocócica PCV10 ofrece protección indirecta a aquellos niños y niñas que son demasiado pequeños para vacunarse, según un estudio realizado por el Instituto de Salud Global de Barcelona (ISGlobal), centro impulsado por la Fundación "la Caixa", en colaboración con el Centro de Investigación en Salud de Manhiça (CISM), Mozambique. Los resultados, publicados en The Pediatric Infectious Disease Journal, se obtuvieron a partir de los sistemas de vigilancia de neumonías y demografía llevados a cabo por el CISM en el Hospital Distrital de Manhiça, al sur de Mozambique.

El neumococo (Streptococcus pneumoniae) es una de las principales causas de meningitis, sepsis y neumonía infantil, especialmente en países de ingresos bajos y medianos. A partir del año 2000, la vacuna contra esta bacteria se añadió a los programas globales de inmunización rutinaria y, en abril de 2013, Mozambique introdujo la PCV10, que protege frente a diez serotipos del neumococo. Esto redujo los casos de enfermedad neumocócica invasiva y neumonía grave en menores de cinco años, pero no se estudiaron los efectos en aquellos que aún no tenían edad para vacunarse: los niños y niñas menores de 10 semanas.

"Estudiamos la carga de la enfermedad neumocócica invasiva y de la neumonía clínica grave en niños/as pequeños/as en el sur de Mozambique antes y después de la introducción de la vacuna PCV10", explica Sérgio Massora, primer autor del estudio e investigador en el CISM. "Para ello, incluimos en el estudio a todos los bebés de menos de diez semanas de vida que fueron diagnosticados con una de estas enfermedades en el Hospital Distrital de Manhiça entre el 2003 y el 2018", añade. El diagnóstico de enfermedad neumocócica invasiva se obtiene al identificar neumococo en sangre o en líquido cefalorraquídeo, mediante pruebas moleculares (PCR) o cultivos; la neumonía clínica grave, en cambio, se diagnostica clínicamente, en base a signos como una dificultad importante para respirar, entre otros.

Los beneficios no se limitan a las personas vacunadas

El equipo investigador observó que, cinco años después de introducir PCV10 en el programa de inmunización de Mozambique, se produjo un declive del 87% y 62% de los casos de enfermedad neumocócica invasiva y neumonía clínica grave, respectivamente, en niños/as pequeños/as no vacunados. Además, se produjo una disminución de la mortalidad relacionada con estas infecciones, que en el caso de la enfermedad neumocócica invasiva pasó de 47 muertes a 0 por cada 100.000 niños/as pequeños/as en riesgo.

Esto significa que los niños y niñas que aún no alcanzan la edad mínima para ser vacunados podrían beneficiarse gracias a la inmunidad grupal. "Nuestros resultados sugieren que la vacunación infantil no solo protege a los niños/as vacunados/as, sino también a los recién nacidos en las primeras semanas de vida, al reducir la circulación de la bacteria en la comunidad", explica Azucena Bardají, médica e investigadora senior de ISGlobal y autora principal del estudio.

Un reto que continúa

Cabe tener en cuenta que otros factores —como la disminución de infecciones infantiles por VIH y la mejoría socioeconómica en el país— podrían haber contribuido a la reducción de la incidencia de neumonía. Los investigadores destacan la importancia de seguir evaluando el impacto a largo plazo de la vacuna: "Es imperativo garantizar que los programas de vacunación con PCV continúen para combatir las muertes prevenibles en niños y niñas de países de bajos recursos", concluye Bardají.

Fuente: Instituto de Salud Global Barcelona. Disponible en https://n9.cl/b0jt5

Ghana confronts the challenge of financing pneumococcal vaccination after Gavi

Mar 19. Pneumonia kills 2,000 children per day worldwide and is responsible for 16% of deaths among children under five in sub-Saharan Africa, making it deadlier than malaria. At Accra's specialist children's hospital, it was the leading cause of death in 2023, and has consistently ranked among the top three causes of hospital admissions over the years.

Dr Mame Yaa Nyarko heads the Princess Marie Louise Hospital, the only public paediatric specialty facility in Ghana's capital. Wearing her royal blue coat, she moves swiftly through the chaotic paediatric emergency room – answering a call, checking an Excel file, directing a nurse administering medication to a young patient with a bandage wrapped around their head.

Having worked in paediatrics since 2007, Dr Nyarko has witnessed the evolution of the disease and, most notably, the impact of the 13-valent pneumococcal conjugate vaccine (PCV): "Following vaccination, there was a noticeable decline in pneumonia cases, but an even more significant reduction in meningitis cases," she says. [Dr Mame Yaa Nyarko, Director, Princess Marie Louise Children's Hospital Ghana]

PCV-13 is a vaccine against pneumococcus, a bacterium with 90 subgroups that causes various diseases, including pneumonia and meningitis, in both adults and children. This vaccine specifically protects against 13 of these subgroups, although other pathogens can also cause these diseases. Its introduction in Africa helped reduce pneumococcal infection-related deaths by 63% between 2000 and 2015.

Credit: Claudia Lacave / Hans Lucas

Ghana began vaccinating children with PCV-13 in 2012 through a co-financed programme with Gavi. But like other countries that have surpassed Gavi's eligibility threshold – meaning that their economies are considered to have grown enough to carry an incrementally larger share of the cost of immunising their populations – Ghana could see the Vaccine Alliance's support phase out by 2030.

Improved health outcomes for children under five

On the hospital's first floor, sunlight filters through blue curtains adorned with cartoon characters, casting a soft glow on the brown walls of the paediatric ward, which are decorated with children's drawings. Dr Mame Yaa Nyarko smiles as she examines a young patient – he has come a long way. Admitted a month ago with pneumonia, his condition worsened after contracting measles, but he is finally recovering and will be discharged soon.

Like him, 641 children were admitted with pneumonia in 2023 at the downtown Accra hospital, suffering from fever, a dry cough and shortness of breath. Twenty-two did not survive, accounting for 15% of the hospital's deaths that year. But according to Dr Nyarko, most of these cases involved children who had not received all their vaccine doses, and the number of severe cases has generally declined. Vaccination coverage stood at around 95% in 2023, according to WHO, and a high-quality systematic review estimates that the vaccine's effectiveness after the second and third doses reaches 58% in Ghana.

In 2016, just three years after the programme began, we experienced a massive outbreak of pneumococcal meningitis. It was primarily adults who were affected, whereas children under five – those who had received the vaccine – were much less impacted.

- Dr Kwame Amponsa-Achiano, head of the Expanded Programme on Immunization at the Ministry of Health

Dr Kwame Amponsa-Achiano, head of the Expanded Programme on Immunization at the Ministry of Health, has also observed the vaccine's impact: "This was evident in 2016, just three years after the programme began, when we experienced a massive outbreak of pneumococcal meningitis. It was primarily adults who were affected, whereas children under five – those who had received the vaccine – were much less impacted."

At the children's hospital, the improvement is noticeable in daily practice, recalls the director: "It now takes a long time before my interns see a case of meningitis. When it happens, and we have to extract cerebrospinal fluid – a procedure called a lumbar puncture – they all gather around to watch.

When I was a young doctor, it was part of our daily routine."

The disease manifests with sensitivity to light, headaches, fever and neck stiffness.

Northern Ghana lies within the African meningitis belt, a geographic zone stretching from west to east just below the Sahara, where meningitis rates are endemic. However, the introduction of PCV-13 into routine immunisation helped lead to a 51% reduction in cases among children under five between 2013 and 2016, even though outbreaks remain recurrent.

Beyond its health benefits, vaccination also has economic advantages. A research team from the University of Ghana calculated that between 2012 and 2031, vaccination could save the country 48% of costs related to treatment and lost productivity for caregivers. As Ghana prepares to transition out of Gavi's support programm, the team aimed to quantify the cost-effectiveness of PCV-13 to inform future policy decisions.

The main takeaway? Maintaining PCV-13 vaccination is cost-effective compared to no vaccination at all.

Conducted as part of a master's programme in health economics, funded by WHO in Ghana, the study estimates that immunisation would cost the state US$ 130 million between 2012 and 2025, and US$ 275 million from 2026 to 2031, assuming Gavi's support ends in 2026. Meanwhile, the cost of treating a single case of pneumococcal disease is estimated at US$ 777.

Looking ahead to 2030: striking a balance

Ghana is currently in transition to phase out of Gavi support, with full transition set for 2030.

Gavi recently raised the eligibility threshold to a Gross National Income (GNI) per capita of US$ 2,300 (three-year average). Ghana is right on the edge, with current estimates hovering around US$ 2,280. Final data, expected in July 2025, could determine whether the country remains eligible or officially graduates from Gavi support.

Ghana currently covers 66% of PCV-13 costs through co-financing via its national health insurance scheme. However, to ensure the programme's long-term sustainability, alternative funding options are being explored, such as dedicated taxes or involvement from donor organisations.

The country is also engaging in regional initiatives. In July 2024, Côte d'Ivoire hosted a first meeting with several transitioning countries, including Ghana, to discuss sustainable financing for health and vaccination programmes. A second meeting took place at the end of 2024, during which countries developed roadmaps to implement commitments made under the Abidjan Declaration.

Promising strategies, but implementation challenges

Following John Mahama's election in January 2025 and the formation of a new government, Ghana is entering a new political phase. Economic reforms and efforts to strengthen Universal Health Coverage could help secure funding for vaccination programmes like PCV-13.

The stakes are high: the long-term success of Ghana's immunisation programms will depend on the government's ability to mobilize national resources while maintaining high vaccine coverage to prevent the resurgence of pneumococcal diseases and other deadly pathogens.

The debate on PCV-13 funding must also be considered in the context of other newly introduced vaccines. Ghana has made strategic choices by adding essential vaccines, such as the malaria vaccine and, soon, the HPV vaccine, to the country's routine immunisation programme.

While these advancements represent major public health milestones, they also come with significant costs. Striking a balance between expanding the vaccination programme and maintaining financial sustainability will be a key challenge in the coming years.

Ghana has made remarkable progress in vaccine coverage in recent decades, and now faces challenges on its journey to self-sufficiency. The country's ability to anticipate these challenges will be crucial in preserving its public health gains.

Fuente: Gavi. Disponible en https://n9.cl/s64t2

Grupo asesor de la OMS evalúa nuevas recomendaciones sobre vacunas

19 mar. El Grupo Asesor Estratégico de Expertos sobre Inmunización (SAGE*, por sus siglas en inglés) celebró su reunión bianual ordinaria del 10 al 13 de marzo para evaluar recomendaciones sobre el uso de una variedad de vacunas.

El SAGE revisó la vacuna antineumocócica, la vacuna contra la varicela, herpes zóster, y la poliomielitis, así como los esfuerzos de priorización de los países para la introducción de nuevas vacunas, entre otros temas.

El informe completo se publicará en el Registro Epidemiológico Semanal el 6 de junio de 2025.

El SAGE se encarga de asesorar a la OMS sobre políticas y estrategias mundiales generales, que abarcan desde las vacunas y la tecnología, la investigación y el desarrollo, hasta la prestación de servicios de inmunización y sus vínculos con otras intervenciones sanitarias.

Poliomielitis

El SAGE expresó su preocupación por la continua circulación del poliovirus tipo 2 derivado de la vacuna y su expansión a nuevas zonas, incluidos países europeos, como lo demuestra la vigilancia ambiental, y destacó la necesidad urgente y apremiante de aumentar las mejoras en la cobertura de inmunización sistemática y de llegar a los niños de dosis cero con dosis de recuperación.

El SAGE expresó preocupación por la continua transmisión del poliovirus salvaje en Pakistán y Afganistán y por la falta general de esfuerzos para lograr un cambio transformador en la estrategia destinada a completar la erradicación del poliovirus.

El SAGE revisó la evidencia actualizada y concluyó que un calendario de vacunación contra la polio con un mínimo de tres dosis de la vacuna IPV (que contiene IPV), como la vacuna hexavalente de células enteras contra la tos ferina, que contiene IPV, a partir de las 6 semanas de edad o más, es adecuado, sin necesidad de una dosis de refuerzo de IPV programada (cuarta dosis) y revisó las recomendaciones existentes en consecuencia.

Sin embargo, el SAGE enfatizó que si los calendarios no programan una cuarta dosis como refuerzo (que podría servir como una posibilidad para recuperar a los niños que no han recibido dosis anteriores), es esencial que los niños reciban las tres dosis.

**El SAGE (Strategic Advisory Group of Experts on Immunization) se encarga de asesorar a la OMS sobre políticas y estrategias mundiales generales, que abarcan desde las vacunas y la tecnología, la investigación y el desarrollo.*

 CUBA

La erradicación de la polio sigue siendo una prioridad: Gavi ha invertido 800 millones de dólares en vacunas antipoliomielíticas inactivadas en el marco de la estrategia actual (Gavi 5.0) y está previsto introducir este año la vacuna hexavalente, que contiene toxoide diftérico, toxoide tetánico, tos ferina de células enteras, antígeno de superficie de hepatitis B recombinante, vacuna conjugada contra *Haemophilus influenzae* tipo b (Hib) y vacunas contra la polio inactivada.

Vacunación neumocócica infantil

Una actualización de la revisión de la evidencia de 2019 continuó sin mostrar una ventaja concluyente de ninguno de los esquemas sobre el otro; la elección de los esquemas debe basarse en factores epidemiológicos y programáticos locales.

Contexto: Además de las dos vacunas actualmente precalificadas por la OMS, PCV10 (Synflorix ®, GlaxoSmithKline) y PCV13 (Prevenar13®, Pfizer), evidencia reciente apoya el uso de una tercera PCV10 precalificada por la OMS (Pneumosil®, Serum Institute of India) para la inmunización de rutina de los bebés utilizando cualquiera de los dos esquemas recomendados de 3 dosis.

SAGE señala que los países que estén considerando cambiar a un producto PCV de valencia más alta recientemente autorizado (por ejemplo, PCV14, PCV15, PCV20) para ampliar la cobertura de serotipos deben tener en cuenta las desventajas que puedan existir, en particular la posible reducción de la protección directa e indirecta contra los serotipos en común con PCV10/PCV13, teniendo en cuenta que las concentraciones de anticuerpos tienden a reducirse a medida que aumenta el número de serotipos en el producto.

El SAGE reafirmó que lograr una alta cobertura con tres dosis de vacunas antineumocócicas conjugadas (PCV) mediante un esquema 3p+0 [3 dosis primarias sin dosis de refuerzo] o 2p+1 [2 dosis primarias con 1 dosis de refuerzo] es la manera más eficaz de prevenir la enfermedad neumocócica infantil.

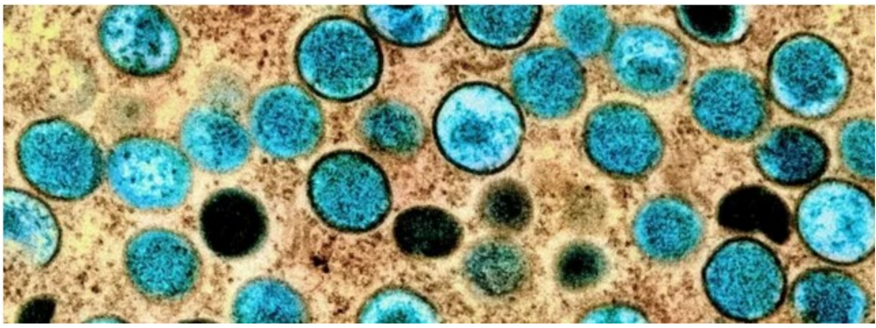
Los países con programas de PCV consolidados que han alcanzado niveles adecuados de inmunidad de grupo pueden considerar una de dos estrategias de ahorro: (i) el uso de una pauta de dosis reducida 1p+1 [1 dosis primaria con 1 dosis de refuerzo] ; o (ii) el uso de una dosis fraccionada del 40% de PCV13 (el único producto cuya evidencia respalda el uso de dosis fraccionada).

Ambas estrategias requieren una alta cobertura de vacunación y un monitoreo cuidadoso del impacto y la cobertura, con planes de contingencia para revertir a esquemas completos de 3 dosis si es necesario.

En entornos con evidencia o sospecha de inmunidad poblacional insuficiente (por ejemplo, alta carga de enfermedad, cobertura de vacunación persistentemente baja y emergencias humanitarias), se deben considerar campañas de cohortes multiedad (MAC) con una dosis única de PCV; las campañas MAC no deben reemplazar ni desviar recursos de los programas de rutina de inmunización con PCV.

Es conveniente establecer capacidad de vigilancia neumocócica (enfermedad y/o estado de portador) en los primeros países en adoptar la vacuna, idealmente unos pocos sitios de vigilancia representativos en cada región de la OMS, para generar evidencia real de la eficacia de las nuevas vacunas neumocócicas y de las estrategias de dosificación alternativas.

Mpox



Si bien se siguen notificando casos de mpox en todas las regiones de la OMS, el número de casos está aumentando en África.

El SAGE señaló que, si bien la vacunación pre y postexposición para controlar el brote en curso era adecuada en las circunstancias actuales, la siguiente fase debería centrarse en la vacunación preventiva. Sin embargo, aún existen lagunas en la evidencia que fundamentan las estrategias para la implementación de la vacunación preventiva, y se están realizando investigaciones para subsanarlas.

Varicela y herpes zóster

SAGE recomendó que se considere el uso de vacunas contra la varicela utilizando un esquema de dos dosis con un intervalo mínimo de cuatro semanas entre dosis para la prevención de la varicela en niños en poblaciones donde la varicela es un problema importante de salud pública.

Los países que introduzcan la vacuna contra la varicela deberían definir objetivos de cobertura de vacunación, guiados por criterios que incluyan la carga de enfermedad nacional y subnacional, la asequibilidad, la relación coste-eficacia, las tasas de seroprevalencia y la edad de adquisición de la infección para evitar el riesgo teórico de que un cambio en la edad de infección resulte en una mayor morbilidad si la cobertura es baja o modesta.

Priorización de la introducción de nuevas vacunas

En el contexto del creciente número de vacunas disponibles, el SAGE enfatizó que cada país debe estar facultado para priorizar estas vacunas y determinar el momento de su introducción en los programas nacionales. Estas decisiones deben tomarse mediante un proceso sistemático, propio del país y basado en el contexto local.

El SAGE instó a los países a colaborar con su Grupo Técnico Asesor Nacional de Inmunización, para que formulen recomendaciones sobre la priorización de nuevas vacunas para su introducción y la optimización de los calendarios y portafolios de vacunación, en estrecha colaboración con sus respectivos programas nacionales de inmunización.

El SAGE señaló los desafíos que enfrentan los países para acceder a la evidencia que respalde la toma de decisiones informadas e instó a la OMS y a todos los miembros a fortalecer la coordinación en este ámbito.

Fuente: La Web de la Salud. Disponible en https://n9.cl/xo5u2

Salud refuerza la vacunación infantil frente al rotavirus y la meningitis (Asturias, España)

19 mar. El cambio pretende alcanzar «la pauta de inmunización más completa posible. La Consejería de Salud ha actualizado el calendario de vacunación infantil para incorporar la profilaxis frente al rotavirus en lactantes y reforzar la protección contra el meningococo. «Este cambio persigue ofrecer a menores y adolescentes la pauta de inmunización más completa posible», indican desde el Ejecutivo.

La vacunación frente al rotavirus, un virus muy contagioso que causa fuertes diarreas en edades tempranas y puede provocar deshidratación, se aplicará a lactantes nacidos a partir del 1 de enero de 2025. La pauta prevista es de tres dosis: a los dos, a los cuatro y a los seis meses de edad.

Por otra parte, para ampliar la protección frente a la enfermedad meningocócica, la causa más común de meningitis bacteriana en edades infantiles, se sustituye la vacuna frente al meningococo C por otra contra el meningococo ACWY, que permite proteger a lactantes frente a cuatro serogrupos.

La enfermedad meningocócica suele presentarse fundamentalmente de dos formas: meningitis o sepsis que, aunque son poco frecuentes, pueden resultar muy graves. Tanto las vacunas meningocócicas frente al serogrupo C como las que actúan contra los serogrupos A, C, W e Y disminuyen la probabilidad de transmisión de la patología, al proporcionar protección comunitaria, a la vez que disminuyen el estado de portador. Esto supone que el virus se transmite con más dificultad a través de la persona infectada, algo muy importante, ya que el portador no presenta síntomas que puedan alertar de la infección.

Por otro lado, el Servicio de Salud (Sespa) inicia estos días una campaña de vacunación frente al virus del papiloma, dirigida a varones de 15 a 18 años, que se prolongará durante todo 2025.

La vacunación de los chicos frente al virus del papiloma humano se incluyó en el calendario de vacunación en 2023 para aquellos que cumplían entonces 10 y 12 años. La medida se amplía ahora para aumentar el grupo de población masculina protegido, a la vez que se refuerza indirectamente la cobertura femenina.

El calendario vacunal es una herramienta de salud pública que favorece a toda la población, tanto a las personas inmunizadas como a las que no reciben la protección. Desde el punto de vista individual, la profilaxis previene enfermedades, reduce la gravedad en el caso de que se contraiga la enfermedad y ofrece protección a lo largo de la vida. La vacunación no se limita a la infancia, sino que se aplica también a adolescentes, adultos y personas mayores, por ejemplo, ante enfermedades como la gripe, el herpes zóster o el neumococo.

Desde la perspectiva comunitaria, la inmunización reduce la transmisión, al disminuir la cantidad de personas susceptibles de contraer una enfermedad, a la vez que protege a las más vulnerables. La inmunidad de grupo beneficia también a quienes no pueden recibir la profilaxis, como bebés, personas con sistemas inmunológicos debilitados o con determinadas condiciones médicas. Además, previene los brotes de enfermedades infecciosas, informa Europa Press.

Fuente: La Voz de Asturias. Disponible en https://n9.cl/2gjvw

Vacunas en desarrollo: novedades sobre el norovirus, Covid-19 y VPH

20 mar. Las vacunas continúan acaparando la atención en el ámbito de la salud, y recientemente han surgido tres actualizaciones clave sobre el desarrollo de inmunizaciones contra el norovirus, el Covid-19 y el virus del papiloma humano (VPH).

El norovirus, una de las principales causas de gastroenteritis en el mundo, ha registrado un alto número de brotes este invierno. Hasta ahora, no existe una vacuna efectiva contra este virus altamente contagioso, pero recientes investigaciones han dado pasos prometedores.

Un estudio de la Universidad de Texas en Austin ha identificado nuevas estrategias para atacar múltiples genotipos del virus, un desafío clave en su desarrollo.

Por otro lado, la empresa Vaxart informó resultados positivos en pruebas con una vacuna en tableta, capaz de generar respuestas inmunológicas tanto en la sangre como en los tejidos mucosos. Aún faltan años para su aprobación, pero estos avances podrían representar una solución en el futuro, especialmente para los niños en países de bajos ingresos, quienes son los más afectados por la enfermedad.

Nuevos datos de los Centros para el Control y la Prevención de Enfermedades (CDC) muestran que la última versión de la vacuna contra el COVID-19 ha reducido en un 33% las visitas a emergencias y en un 45% el riesgo de hospitalización en adultos mayores sin enfermedades inmunológicas. Aunque la tasa de vacunación ha sido menor en comparación con la de la gripe, los expertos recomiendan su aplicación para reducir complicaciones graves, especialmente en personas con condiciones de salud preexistentes.

Impacto de la vacuna contra el VPH

Por primera vez, los datos a largo plazo han demostrado el impacto real de la vacunación contra el VPH en la reducción del riesgo de cáncer de cuello uterino. Según un informe de los CDC, las mujeres jóvenes que recibieron la vacuna en su adolescencia tienen un 80% menos de probabilidades de desarrollar lesiones precancerosas.

Estos avances refuerzan la importancia de la inmunización en la prevención de enfermedades graves y su papel en la salud pública global.

Fuente: BeHealth. Disponible en https://n9.cl/ccmw2

Pneumonia Vaccine Saves Lives

Mar 21. Over one hundred years ago, the gold mining industry of South Africa had a problem: too many workers were dying from pneumonia. They turned to Dr. Almorth Wright, a British physician who had successfully created a vaccine against typhoid fever that saved countless lives of British soldiers in World War I and other wars. Wright and his colleagues developed an inoculation of killed pneumococci bacteria which resulted in a substantial reduction of cases of pneumonia and death in the miners.

Pneumonia is an infection in the lungs that causes inflammation and accumulation of fluid or pus, making it difficult to breathe. Pneumonia can be caused by viruses, bacteria, and fungi. Risk factors for pneumonia include old age, young children, smoking, lung diseases such as chronic obstructive pulmonary disease and asthma, other chronic medical conditions, poor air quality, and more.

Antibiotics have been revolutionary in treating bacterial pneumonia, decreasing the rates of death substantially. Unfortunately, antibiotics do not treat viruses, and early use of antibiotics in the course of a virus will not decrease the risk of pneumonia. If someone has cold symptoms, rest, fluids, time, and an expectorant like guaifenesin can be helpful. If symptoms get worse with the return or persistence of fevers, worsening cough, shortness of breath, or chest pain, please seek medical attention.

Vaccines for pneumonia, influenza, haemophilus influenzae (Hib), and respiratory syncytial virus (RSV) have significantly decreased the rates of pneumonia. The pneumonia vaccine is now recommended for infants and young children, all adults over 50 years of age and those with certain chronic medical conditions. The Centers for Disease Control and Prevention (CDC) lowered the age recommendation from 65 to 50 in October 2024 since adults aged 50+ are 6.4x more likely than younger adults to get pneumococcal pneumonia.

The pneumonia vaccine has changed and updated through the years with the types of bacteria that are targeted. If you have already received a pneumonia vaccine, depending on what you have received and if it has been several years or if you have chronic medical conditions, you may want to talk to your healthcare provider about getting a new pneumonia vaccine.

Prevention is the best way to fight disease. To prevent pneumonia, it is helpful to wash your hands, do not smoke, consider vaccination, and help keep your immune system strong by getting good sleep, exercising, and eating healthy.

Fuente: News Letter Journal. Disponible en https://n9.cl/5l48h

Health experts urge free vaccines for children to prevent invasive meningococcal disease

Mar 22. Philippine health experts are raising awareness about Invasive Meningococcal Disease (IMD), a rare but life-threatening bacterial infection, urging the government to provide free vaccines for children.

During a media roundtable on Monday, March 17, 2025, pediatric specialists Dr. Jonathan Go Lim and Dr. Jo Janette de la Calzada emphasized the severity of IMD, which can progress rapidly and become fatal within 24 hours.

“Symptoms like headache, sore throat, nausea, difficulty breathing and irritability may seem mild at first, but the disease can worsen quickly. Without immediate medical attention, it can be fatal within a day,” de la Calzada said.

IMD is caused by Neisseria meningitidis bacteria, which spreads through respiratory droplets. It can lead to sepsis (blood poisoning) or meningitis (brain inflammation), resulting in severe complications or death. Survivors may suffer long-term neurological and behavioral effects.

Vaccines only at private hospitals

Despite the severity of the disease, Lim and de la Calzada noted that there is no specific government program for IMD vaccination.

“We have no specific government policy regarding vaccination for IMD, but the government requires it,” de la Calzada said, adding that IMD vaccines are available in private hospitals. Both experts urged local governments to prioritize making the vaccine accessible to children.

When asked about vaccine prices, they declined to provide specific figures.

“Vaccination is something that we would like for the government to give especially to young children.

(I understand) that there things that they want to do first, but that's something that we hope the government would eventually do, to give out the vaccines," Lim said.

Lim also urged local governments to enhance their disease reporting systems to improve early detection and response to IMD cases.

Serogroup B as leading cause

Experts noted that Serogroup B has been the dominant strain of IMD in the Philippines, accounting for 68 percent of cases from 2018 to 2023.

"Serogroup B has been the most reported group in blood and cerebrospinal fluid (CSF) PCR surveillance tests. This makes it even more urgent for parents and healthcare providers to recognize the disease and act swiftly," Lim said.

Doctors emphasized that increasing public awareness, strengthening vaccination efforts and improving reporting systems could help prevent IMD-related deaths and protect children from the disease.

Cebu with high IMD cases

Central Visayas recorded the second-highest number of IMD cases in the Philippines in 2021, with 14 confirmed cases, or 13 percent of the national total.

The National Capital Region led with 21 cases (19 percent), followed by Calabarzon with 13 cases (12 percent) and Central Luzon with 11 cases (10 percent).

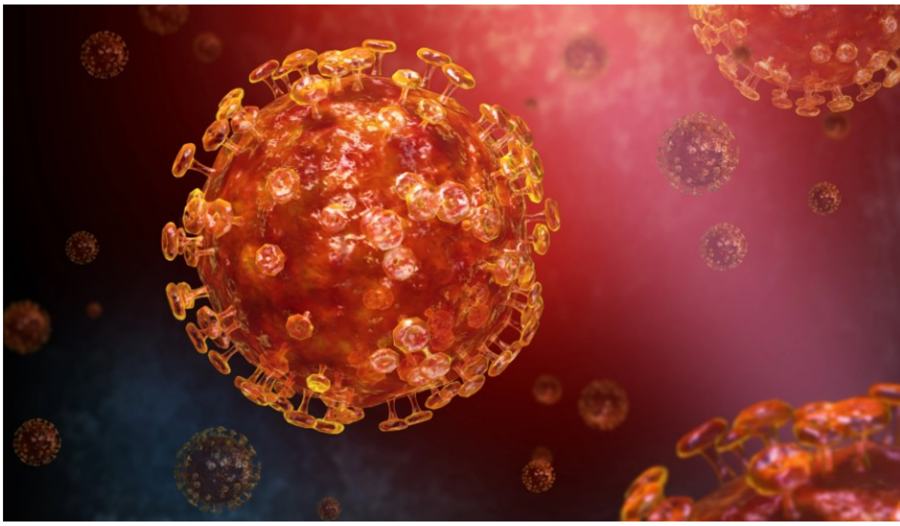
Experts also noted that Cebu Province recorded the highest number of births in Central Visayas in 2023, with 49,098 registered births. Since infants and young children under five are the most vulnerable to IMD, doctors urged parents to be extra cautious.

"Parents should be aware of the warning signs and consult a doctor immediately if they suspect IMD. Acting quickly can save lives," said Lim, a pediatric infectious disease expert.

Fuente: SunStar Cebu. Disponible en https://n9.cl/axkebu

New funding for vaccine to protect against deadly MERS coronavirus

Mar 23. Efforts to advance the first-ever vaccine against Middle East Respiratory Syndrome are progressing, with a new CEPI investment moving a promising vaccine candidate into preclinical trials.



Middle East Respiratory Syndrome (MERS) is a viral illness caused by MERS coronavirus, from the same viral family as COVID-19. Outbreaks can start when the virus spreads from camels to humans. MERS has a higher fatality rate than COVID-19, with up to a third of infections resulting in death.

Over 2600 cases have been reported since its discovery in 2012, according to a disease report from the World Health Organization (WHO) published this month.

With up to $2.6 million funding from CEPI, the new MERS vaccine is being developed by Uvax Bio, an early-stage vaccine technology company which is a spin-out of The Scripps Research Institute in the US. The investment forms part of CEPI's wider coronavirus vaccine portfolio.

"We've already seen three major outbreaks caused by coronaviruses in the 21st century, including both the persistent threat of MERS across the Middle East, as well as the COVID-19 pandemic" explains Dr Kent Kester, Executive Director of Vaccine R&D, CEPI. "Investing in vaccines to protect against these vicious threats is therefore crucial. Uvax Bio's unique vaccine could help strengthen our response to future MERS outbreaks, while also informing the development of vaccines being developed against other coronaviruses."

The vaccine is being built using Uvax Bio's proprietary protein nanoparticle technology, 1c-SApNP®, licensed from Scripps Research. The technology is already being tested against other infectious diseases, including HIV where an in-human trial is ongoing.

Uvax's novel vaccine design uses tiny protein "nanoparticles" to closely resemble, or mimic, the size and shape of the MERS coronavirus. Uvax Bio has analysed viral structures and designed the technology to present enhanced antigens — parts of the virus that trigger an immune response—in a multilayered scaffold layout. This design offers stability and allows for as many as twenty antigens to be presented at one time which could help provide strong protection by generating both antibody and T cell immunity.

The 1c-SApNP® technology is also unique as it has been combined with a process called 'glycan trimming'. Here, sugar molecules—called glycans—that would normally cover the MERS virus are shortened in the nanoparticle virus-mimicking vaccine design. This could expose additional sites on the antigen surface, enhancing the immune response.

"Uvax Bio is excited to advance our MERS nanoparticle vaccine candidate with CEPI's support" states Jiang Zhu, Ph.D., Co-founder and Interim Chief Scientific Officer of Uvax Bio, and an Associate Professor at Scripps Research, "our 1c-SApNP platform has the potential to impact this disease significantly."

Alongside its innovative vaccine design, Uvax Bio's technology is advantageous as the platform uses a simple and robust manufacturing process to express the nanoparticles in just one-step. It is also expected to not require complex frozen storage—which can otherwise be a barrier to vaccine access—for up to one-year.

CEPI's funding will also support research to assess manufacturing the vaccine through an alternative production method, known as the C1 fungal expression system. If successful, this could increase the speed of vaccine production and lower manufacturing costs to improve access to vaccine doses in the future.

The Uvax Bio project is the latest to be announced as part of CEPI's call for vaccine innovations which could help the world better prepare for future epidemics and pandemics.

Both CEPI and Uvax Bio are committed to enabling equitable access to the outputs of their partnership, in line with CEPI's Equitable Access Policy. Project results will be published open access for the benefit of the global scientific community.

CEPI's MERS programme seeks to advance candidate vaccines through Phase 2 trials and develop an investigational ready reserve that could be used to control future regional outbreaks.

CEPI has made significant investments to advance vaccines against other coronaviruses. This includes supporting the development of multiple vaccines against COVID-19 now approved for domestic and global use. CEPI is also the leading funder of broadly protective coronavirus vaccines and is developing a coronavirus vaccine library.

About MERS

MERS is a severe respiratory infection caused by MERS-CoV, a coronavirus that was first identified in 2012 in Saudi Arabia. It belongs to the same family of viruses that cause the common cold, severe acute respiratory syndrome (SARS), and COVID-19. It has caused more than 2,600 human infections in at least 27 countries since it first emerged, and it has a case-fatality rate of more than 35 percent. There are as yet no licensed vaccines or treatments for MERS. The WHO has identified MERS as a priority disease with epidemic potential in urgent need of R&D. MERS was one of the first viruses designated a priority pathogen by CEPI when the coalition launched in 2017.

About CEPI

CEPI was launched in 2017 as an innovative partnership between public, private, philanthropic and civil organisations. Its mission is to accelerate the development of vaccines and other biologic countermeasures against epidemic and pandemic disease threats and enable equitable access to them. CEPI has supported the development of more than 50 vaccine candidates or platform technologies against multiple known high-risk pathogens and is also advancing the development of rapid response platforms for vaccines against a future Disease X. Central to CEPI's pandemic-beating five-year plan for 2022-2026 is the '100 Days Mission' to compress the time taken to develop safe, effective, globally accessible vaccines against new threats to just 100 days.

About Uvax

Uvax Bio, LLC, a spin-off vaccine company from Scripps Research, employs proprietary 1c-SApNP® platform technology invented by Scripps researchers to develop and commercialize vaccines for challenging infectious diseases. The 1c-SApNP® platform utilizes the latest advances in computational and structural biology to design and produce virus-like particles (VLPs) that closely resemble the target virus in its infectious form. These intricately designed protein VLPs activate and prolong interaction with the immune system, which is expected to generate more potent and durable immune responses compared to protein subunit vaccines.

Uvax Bio holds exclusive worldwide rights to the 1c-SApNP® platform and an expanding portfolio of 12 patented vaccine candidates in development at stages ranging from optimization to clinical development. In addition to the leading clinical candidates for HIV-1, Uvax Bio is working to advance its vaccine candidates for pandemic influenza, respiratory syncytial virus (RSV), human metapneumovirus (hMPV), and hepatitis C virus (HCV). Uvax Bio vaccines are produced using a single-step, universal, cell-based manufacturing process. For more information, visit www.uvaxbio.com.

Fuente: CEPI. Disponible en https://n9.cl/yfpns6

“Ahora podemos construir vacunas en menos de 100 días”, dice médico de Pfizer

23 mar. El 23 de marzo de 2020 la población mexicana se encerró. Ese día inició un programa de confinamiento para reducir los contagios del virus SARS-CoV-2, que comenzaba a extenderse por el país y ya había causado la primera muerte confirmada. Las autoridades de salud de ese momento lo llamaron Quédate en Casa y esperaban que durara un mes, pero la estrategia se extendió 60 días más.

Ese escenario se repitió a nivel global. Mientras el mundo se resguardaba en sus casas de un diminuto pero contagioso y mortal virus, científicos y expertos en vacunas se ponían en acción. Urgía encontrar una vacuna contra COVID-19, la enfermedad que surgió hace cinco años y trastocó la normalidad.

A contrarreloj para encontrar vacunas

Fueron días estresantes, recuerda Carlos Molina, líder médico de vacunas en Pfizer México e involucrado en el desarrollo de la dosis anticovid de ese laboratorio.

La tensión se intensificaba para los científicos porque miles de personas morían y otras miles se contagiaban cada día por la peor pandemia de los últimos 100 años.

Y, sin embargo, esto no quebró a la comunidad médica. Por el contrario, los esfuerzos de diferentes países se unieron. Laboratorios y especialistas compartieron información y muy pronto se logró la primera secuencia genómica del virus.

“Fuimos capaces de identificar muy rápido el genoma del virus y detectar cuál era la proteína que utilizaba como llave para abrir la cerradura, entrar e infectar las células del cuerpo humano”, explica a Expansión Política.

Estos fueron los primeros pasos necesarios para trazar la ruta de una posible vacuna. El siguiente fue diseñar la tecnología adecuada.

La tecnología ARNm

Los científicos recordaron un hito de hace dos décadas: Katalin Karikó y Drew Weissman descubrieron cómo modificar las moléculas del Ácido Ribonucleico Mensajero (ARNm) para utilizarlas como agente terapéutico. Por esta aportación científica se les concedió el Premio Nobel de Medicina en 2023.

“Vinimos a darnos cuenta que era una plataforma importante después de una pandemia”, explica Molina.

El ARNm permite enviar un “código” a las células para que los glóbulos blancos produzcan anticuerpos, es decir, protejan de un agente extraño.

Con esta tecnología, los científicos crearon algunas vacunas contra COVID-19 con un método distinto y seguro: no necesitan introducir el virus completo al cuerpo humano, sino utilizar una proteína presente en la superficie del virus que contiene su información genética.

Además, al no requerir un cultivo celular, que lleva muchos recursos y tiempo, la producción de vacunas se hizo en tiempo récord. Una revolución en la ciencia médica.

“La verdad es que nunca lo imaginé”, dice Molina sobre lograr el desarrollo de la vacuna en unos meses, cuando anteriormente se requerían cinco o más años.

Un lustro después, narra estos sucesos con un sabor agridulce. Por un lado, sintió una inmensa felicidad cuando el último ensayo clínico de la vacuna arrojó resultados positivos. “Se vivió con mucha alegría”, dice. Por otro lado, el covid ya dejaba en el mundo una estela de muertes y sufrimiento.

“Nunca pensé que fuéramos a actuar de forma tan rápida, sin embargo, se perdieron muchas vidas en el camino”

Carlos Molina, líder médico de vacunas en Pfizer México.

Hasta octubre de 2024 se contabilizaban 7.7 millones de decesos por COVID-19 a nivel global. En México se registraron más de 300,000 hasta junio de 2023, tras el levantamiento de la emergencia sanitaria.

No obstante, un estudio de la revista The Lancet estimó que, solo en el primer año de aplicación de las dosis de COVID-19, se salvaron 20 millones de vidas.

La actualización de las vacunas

Una vez listas las vacunas, su aplicación fue masiva. Las primeras dosis llegaron a México en diciembre de 2020, pero en muchos países con menores ingresos tardaron más.

Conforme las poblaciones accedieron a ellas, pudo controlarse la pandemia, incluso con las mutaciones del coronavirus.

Pero la historia de las vacunas COVID-19 no termina todavía. El virus sigue presente en el mundo y las personas con mayor riesgo de enfermar de gravedad necesitan refuerzos.

Así que, a medida de que el SARS-CoV-2 muta en nuevas variantes, muy distintas a la original, las dosis deben actualizarse para mantener su nivel de efectividad.

“La vacunación en masa fue lo único que nos permitió salir del confinamiento, fue lo que permitió a la gente volver a abrazar a sus seres queridos”

Carlos Molina, líder médico de vacunas en Pfizer México.

La vacuna de Pfizer se ha modificado cinco veces y esto es posible gracias a la tecnología ARNm.

“Nos permite construir vacunas en menos de 100 días dependiendo la nueva variante que esté circulando”, afirma.

Dudas sobre vacunas

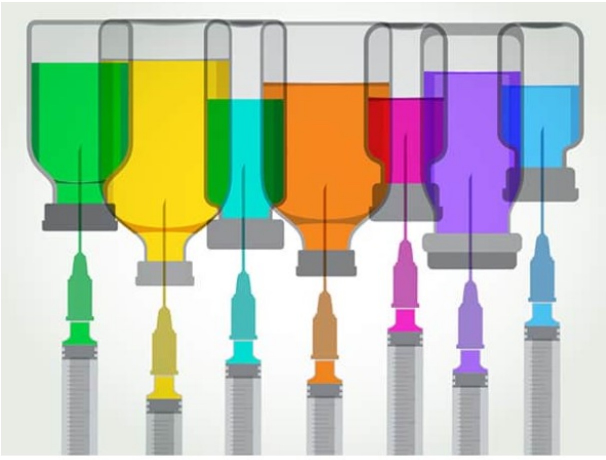
A pesar del impacto positivo de las vacunas en general, durante la pandemia de covid se incrementó la desinformación sobre las dosis y en los últimos años creció un movimiento antivacunas global, con consecuencias desastrosas. Mientras las coberturas de vacunación bajan, algunas enfermedades que se consideraban erradicadas resurgen, como el sarampión.

Fuente: Expansión Política. Disponible en https://n9.cl/8g4y2

WHO adds first maternal RSV vaccine to prequalification list

Mar 24. The World Health Organization (WHO) has announced that it has added Pfizer’s maternal respiratory syncytial virus (RSV) vaccine to its list of prequalified vaccines.

Abrysvo, which is now the first maternal RSV vaccine to be prequalified by the organisation, aims to prevent RSV-associated lower respiratory tract disease in infants during the first six months through the transfer of antibodies during gestation.



RSV is a common contagious virus characterised by several mild, cold-like symptoms. Although most people can recover within a week or two, the virus can cause severe illness in certain groups, including infants.

There are currently no specific treatments for RSV infection, underscoring the importance of preventive measures such as vaccines.

To date, Abrysvo has only been used for maternal vaccination in high- and middle-income countries. However, the new prequalification status means governments and international agencies such as Gavi and Unicef can procure the vaccine for eligible low- and lower-middle-income countries.

Katherine O'Brien, WHO Director, Immunisation, Vaccines and Biologicals, said: "RSV has long been an under-recognised public health problem, significantly impacting infants worldwide.

"Expanding access to maternal RSV vaccination will help keep infants out of hospitals, save lives and free up limited resources for other health priorities."

WHO is now set to launch a position paper in May based on the Strategic Advisory Group of Experts on Immunization's global recommendations to introduce passive immunisation for the prevention of severe RSV disease in young infants.

The paper is aimed at guiding public health officials and immunisation programme managers on use of RSV immunisation products in their national programmes, as well as national and international funding agencies.

Fuente: Pharma Times. Disponible en https://n9.cl/g8jj15

OPS facilita acceso a la vacuna VPH9-valente desde julio de 2025 para combatir el cáncer cérvicouterino

24 mar. Esta iniciativa busca fortalecer los programas de inmunización y avanzar en la eliminación del cáncer cervicouterino, ofreciendo una herramienta más eficaz y asequible.

Esta vacuna, que protege contra 9 cepas del VPH, permitirá a los programas de inmunización disponer de una herramienta más completa y efectiva para prevenir el cáncer cervicouterino y otros tipos de cáncer relacionados con el VPH.

El VPH es responsable de la mayoría de los casos de cáncer cervicouterino, el cual sigue siendo una de las principales causas de muerte por cáncer en las mujeres en América Latina y el Caribe. La incorporación de la VPH9-valente a los programas de vacunación de la región será un avance significativo en la reducción de la mortalidad relacionada con este tipo de cáncer.

Más protección contra el VPH: 9 cepas para una prevención más eficaz

La vacuna VPH9-valente representa una mejora significativa respecto a la vacuna cuadrivalente que se utilizaba anteriormente. Mientras que la versión cuadrivalente protegia contra 4 cepas del VPH, la nueva vacuna VPH9-valente amplía la cobertura a 9 cepas, 5 de las cuales no estaban incluidas en la vacuna anterior.

Esta expansión proporciona una protección más completa contra los genotipos del virus que son más prevalentes en el cáncer cervicouterino, y también en otros cánceres, como el cáncer anal, de cabeza y cuello, y de pene.

Este avance en la profilaxis contra el VPH ofrece a los países participantes una oportunidad única para reforzar sus programas de inmunización, no solo para reducir la incidencia de cáncer cervicouterino, sino también para disminuir la carga de otras enfermedades asociadas al VPH..

Un compromiso con la calidad y la accesibilidad

El Fondo Rotatorio de la OPS, que facilita la adquisición de vacunas y otros insumos esenciales, asegura que todas las vacunas incluidas en su portafolio sean precalificadas por la Organización Mundial de la Salud (OMS) o por una autoridad sanitaria de referencia.

Esta precalificación garantiza que las vacunas sean seguras, eficaces y de alta calidad, brindando a los países de la región acceso a tecnologías sanitarias confiables y alineadas con los más altos estándares internacionales.

"La inclusión de la vacuna VPH9-valente en el Fondo Rotatorio se convierte en un aliado adicional para redoblar los esfuerzos de vacunación en las Américas, en la prevención de cánceres relacionados con el VPH, permitiendo que los países puedan ampliar el rango de protección contra este virus", explicó Santiago Cornejo, Gerente Ejecutivo de los Fondos Rotatorios Regionales de la OPS.

El reto de eliminar el cáncer cervicouterino para 2030

El objetivo de la OPS, a través de su Iniciativa de Eliminación, es erradicar más de 30 enfermedades para 2030, con especial énfasis en el cáncer cervicouterino.

Para lograrlo, la vacunación contra el VPH es una herramienta clave, y la introducción de la vacuna VPH9-valente representa un avance fundamental en este proceso. La OPS tiene como meta vacunar al 90% de las niñas en la región antes de los 15 años con al menos una dosis de la vacuna contra el VPH, lo que permitiría una protección duradera contra los tipos de VPH más peligrosos.

Sumado a eso, la OPS está trabajando para garantizar que la vacuna sea accesible a todas las poblaciones, independientemente de su nivel socioeconómico, mediante el modelo del Fondo Rotatorio, que facilita la adquisición conjunta de vacunas por parte de los países de la región.

Beneficios del enfoque del Fondo Rotatorio: acceso asequible y oportuno

El modelo del Fondo Rotatorio de la OPS permite a los países combinar su poder de compra para negociar mejores precios con los proveedores de vacunas y otros insumos de salud. Este enfoque reduce los costos de adquisición y simplifica los procesos de compra, lo que facilita que los países de la región accedan a las vacunas de manera más eficiente.

La implementación de la vacuna VPH9-valente fortalecerá los programas de inmunización existentes y ayudará a reducir las disparidades en el acceso a la salud, al ofrecer una opción de vacunación más eficaz y accesible para las poblaciones más vulnerables. Con esta estrategia, la OPS reafirma su compromiso con la salud pública y el bienestar de las personas en las Américas.

Fuente: Medicina y Salud Pública. Disponible en https://n9.cl/50dd8

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Artículos científicos publicados en Medline

Filters activated: (vaccine[Title/Abstract]) AND (("2025/03/13"[Date - Publication] : "2025/03/23"[Date - Publication])) 373 records.

Diphtheria-Tetanus-Pertussis Vaccines.

[No authors listed]2025 Mar 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–.PMID: 29999632

Emtricitabine.

[No authors listed]2025 Mar 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–.PMID: 30000608

Tenofovir.

[No authors listed]2025 Mar 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–.PMID: 30000609

Rotavirus Vaccines.

[No authors listed]2025 Mar 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–.PMID: 30000693

Sensing mycobacteria through unconventional pathways.

Almeida CF, Juno JA.J Clin Invest. 2025 Mar 17;135(6):e190230. doi: 10.1172/JCI190230.PMID: 40091837

COVID-19 **vaccine** acceptance and hesitancy in Cameroon: a systematic review and meta-analysis.

Cheuyem FZL, Amani A, Nkodo ICA, Boukeng LBK, Edzamba MF, Nouko A, Guissana EO, Ngos CS, Achangwa C, Mouangue C.BMC Public Health. 2025 Mar 17;25(1):1035. doi: 10.1186/s12889-025-22195-4.PMID: 40097975

The search for a TNBC **vaccine**: the guardian **vaccine**.

Fines C, McCarthy H, Buckley N.Cancer Biol Ther. 2025 Dec;26(1):2472432. doi: 10.1080/15384047.2025.2472432. Epub 2025 Mar 15.PMID: 40089851

The seroprevalence of adenoviruses since 2000[1].

Hong L, Li J, Zeng W, Li Y, Yu C, Zhao S, Chen L, Feng Y.Emerg Microbes Infect. 2025 Dec;14(1):2475831. doi: 10.1080/22221751.2025.2475831. Epub 2025 Mar 17.PMID: 40035700

Advances in Polymer-Based Self-Adjuvanted Nanovaccines.

Ling X, Dong Z, He J, Chen D, He D, Guo R, He Q, Li M.Small. 2025 Mar 13:e2409021. doi: 10.1002/smll.202409021. Online ahead of print.PMID: 40079071

Conserved antigens for enteric vaccines.

Walker RI.Vaccine. 2025 Mar 19;50:126828. doi: 10.1016/j.vaccine.2025.126828. Epub 2025 Feb 5.PMID: 39914256

Rational mpox **vaccine** design: immunogenicity and protective effect of individual and multicomponent proteins in mice.

Cheng X, Wang Y, Huang B, Bing J, Wang T, Han R, Huo S, Sun S, Zhao L, Shu C, Deng Y, Tan W.Emerg Microbes Infect. 2025 Mar 19:2482702. doi: 10.1080/22221751.2025.2482702. Online ahead of print.PMID: 40105863

Thermoresistant flagellin-adjuvanted cancer **vaccine** combined with photothermal therapy synergizes with anti-PD-1 treatment.

Thiruppathi J, Vijayan V, Hwang HS, Bang YJ, Loeurng V, Hong SH, Sundaram A, Park IK, Lee SE, Rhee JH.J Immunother Cancer. 2025 Mar 21;13(3):e010272. doi: 10.1136/jitc-2024-010272.PMID: 40118497

Immune history shapes human antibody responses to H5N1 influenza viruses.

Garretson TA, Liu J, Li SH, Scher G, Santos JJS, Hogan G, Vieira MC, Furey C, Atkinson RK, Ye N, Ort JT, Kim K, Hernandez KA, Eilola T, Schultz DC, Cherry S, Cobey S, Hensley SE.Nat Med. 2025 Mar 13. doi: 10.1038/s41591-025-03599-6. Online ahead of print.PMID: 40082696

Multifunctional liposomal gel in regenerative medicine.

Mohandas M, Rangasamy J.J Liposome Res. 2025 Mar 19:1-13. doi: 10.1080/08982104.2025.2480786. Online ahead of print.PMID: 40105376

Vaccines for Alzheimer's disease: a brief scoping review.

Serag I, Abouzid M, Moawad MHED, Jaradat JH, Hendawy M, Hendi NI, Alkhawaldeh IM, Abdullah JA, Elsakka MM, Muneer MA, Elnagar MA, Fakher MA, Elkenani AJ, Abbas A.Neurol Sci. 2025 Mar 20. doi: 10.1007/s10072-025-08073-2. Online ahead of print.PMID: 40111670

Henipaviruses: epidemiology, ecology, disease, and the development of vaccines and therapeutics.

Spengler JR, Lo MK, Welch SR, Spiropoulou CF.Clin Microbiol Rev. 2025 Mar 13;38(1):e0012823. doi: 10.1128/cmr.00128-23. Epub 2024 Dec 23.PMID: 39714175

Diet, microbiome, and probiotics establish a crucial link in **vaccine** efficacy.

Dutta S, Chatterjee N, Gallina NLF, Kar S, Koley H, Nanda PK, Biswas O, Das AK, Biswas S, Bhunia AK, Dhar P.Crit Rev Microbiol. 2025 Mar 20:1-26. doi: 10.1080/1040841X.2025.2480230. Online ahead of print.PMID: 40110742

Relationships Between **Vaccine** Knowledge, Hesitancy, and Conspiracy Beliefs on COVID-19, Influenza, and HPV Vaccination.

Dickey SL, Yigit I, Maragh-Bass AC, Comello MLG, Stoner MCD, Larsen MA, Muessig KE, Pettifor AE, Budhwani H, Hightow-Weidman LB.J Racial Ethn Health Disparities. 2025 Mar 17. doi: 10.1007/s40615-025-02384-y. Online ahead of print.PMID: 40097889

[Genomic characterisation of invasive Neisseria meningitidis in Spain (2011/12-2022/23): Expansion of clonal complex 213 and the potential threat to 4CMenB **vaccine** strain coverage.]

Roca-Grande J, Mir-Cros A, Muñoz-Almagro C, Lung M, Bellés-Bellés A, Càmara J, Cercenado E, Galán-Ladero MA, Martín-Nalda A, Moreno-Mingorance A, de la Cruz DN, Ángeles Orellana M, Palop B, Pérez-Argüello A, Puigsech-Boixeda G, Dolores Quesada M, Rivera A, Rodriguez-Fernandez A, de Gopegui ER, Sarvisé C, Soler-Garcia A, Viñado B, Larrosa N, González-López JJ; GE-EMIE Study Team.Emerg Microbes Infect. 2025 Mar 19:2482696. doi: 10.1080/22221751.2025.2482696. Online ahead of print.PMID: 40105365

[A modular protocol for virosome display of subunit **vaccine** antigens.]

Rosado VC, Adams L, Yousif AS, Sangesland M, Ronsard L, Okonkwo V, McCarthy C, Alexander C, Irvine D, Lingwood D.STAR Protoc. 2025 Mar 21;6(1):103610. doi: 10.1016/j.xpro.2025.103610. Epub 2025 Jan 31.PMID: 39891914

[Research progress of mosquito-borne virus mRNA vaccines.]

Sun N, Su Z, Zheng X.Mol Ther Methods Clin Dev. 2024 Dec 12;33(1):101398. doi: 10.1016/j.omtm.2024.101398. eCollection 2025 Mar 13.PMID: 39834558

[Acceptance and preference between respiratory syncytial virus vaccination during pregnancy and infant monoclonal antibody among pregnant and postpartum persons in Canada.]

McClymont E, Wong JMH, Forward L, Blitz S, Barrett J, Bogler T, Boucoiran I, Castillo E, D'Souza R, El-Chaâr D, Fadel SA, Gantt S, Kuret V, Ogilvie G, Poliquin V, Sadarangani M, Scott H, Snelgrove JW, Tunde-Byass M, Money D; COVERED Team.Vaccine. 2025 Mar 19;50:126818. doi: 10.1016/j.vaccine.2025.126818. Epub 2025 Feb 6.PMID: 39919449

[Pertussis in Poland in 2022.]

Rumik A, Paradowska-Stankiewicz I.Przegl Epidemiol. 2025 Mar 18;78(4):428-438. doi: 10.32394/pe/195724. Epub 2024 Nov 19.PMID: 40101009

[A narrative review on the effectiveness of PPSV23 vaccination in adults in China.]

Zhang W, Bai P, Hu W.Hum Vaccin Immunother. 2025 Dec;21(1):2440955. doi: 10.1080/21645515.2024.2440955. Epub 2025 Mar 18.PMID: 40099896

[A novel platform for engineered AAV-based vaccines.]

Babutzka S, Gehrke M, Papadopoulou A, Diedrichs-Möhring M, Giannaki M, Hennis L, Föhr B, Kooyman C, Osterman A, Yannaki E, Wildner G, Ammer H, Michalakis S.Mol Ther Methods Clin Dev. 2025 Jan 22;33(1):101418. doi: 10.1016/j.omtm.2025.101418. eCollection 2025 Mar 13.PMID: 40008090

[A polyvalent **vaccine** for selectively killing tumor-associated bacteria to prevent cancer metastasis.]

Kang Z, Chen L, Li P, Zheng Z, Shen J, Xiao Z, Miao Y, Yang Y, Chen Q.Sci Adv. 2025 Mar 14;11(11):eadt0341. doi: 10.1126/sciadv.adt0341. Epub 2025 Mar 14.PMID: 40085697

An epitope-directed mRNA **vaccine** inhibits tumor metastasis through the blockade of MICA/B alpha1/2 shedding.

Wang R, Wu J, Lin Y, Xiao Y, Yang B, Yao S, Pan T, Fu Z, Li S, Wang C, Zhu Y.Cell Rep Med. 2025 Mar 18;6(3):101981. doi: 10.1016/j.xcrm.2025.101981. Epub 2025 Feb 24.PMID: 39999840

Construction of an immunoinformatics-based multi-epitope **vaccine** candidate targeting Kyasanur forest disease virus.

Kasibhatla SM, Rajan L, Shete A, Jani V, Yadav S, Joshi Y, Sahay R, Patil DY, Mohandas S, Majumdar T, Sonavane U, Joshi R, Yadav P.PeerJ. 2025 Mar 21;13:e18982. doi: 10.7717/peerj.18982. eCollection 2025.PMID: 40130172

Bacillus subtilis surface display technology: applications in bioprocessing and sustainable manufacturing.

Bahrulolum H, Ahmadian G.Biotechnol Biofuels Bioprod. 2025 Mar 15;18(1):34. doi: 10.1186/s13068-025-02635-4.PMID: 40089785

Human papillomavirus type 16 and 18 viral clearance and progression to precancer among women aged 18-25 years enrolled in the Costa Rica HPV prophylactic **vaccine** trial (CVT).

Sierra MS, Carvajal LJ, Dull P, Herrero R, Schussler J, Hildesheim A, Schiller JT, Ocampo R, Liu D, Kreimer AR, Rodriguez AC, Lowy DR, Porras C; Costa Rica HPV Vaccine Trial (CVT) Group.Vaccine. 2025 Mar 19;50:126841. doi: 10.1016/j.vaccine.2025.126841. Epub 2025 Feb 16.PMID: 39961279

Quality of Care in Adults With Diabetes.

Hwang JH, Ali MK, Huang ES.2025 Mar 6 [updated 2025 Mar 17]. In: Lawrence JM, Casagrande SS, Herman WH, Wexler DJ, Cefalu WT, editors. Diabetes in America [Internet]. Bethesda (MD): National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); 2023–.PMID: 40063710

CD47 Peptide-Cloaked Lipid Nanoparticles Promote Cell-Specific mRNA Delivery.

Papp TE, Zeng J, Shahnawaz H, Akyianu A, Breda L, Yadegari A, Steward J, Shi R, Li Q, Mui BL, Tam YK, Weissman D, Rivella S, Shuvaev V, Muzykantov VR, Parhiz H.Mol Ther. 2025 Mar 13:S1525-0016(25)00192-3. doi: 10.1016/j.ymthe.2025.03.018. Online ahead of print.PMID: 40087866

Assessment of periodontitis **vaccine** using three different bacterial outer membrane vesicles in canine model.

Nakao R, Yamaguchi T, Shibasaki H, Saeki J, Takahashi A, Tominaga R, Abe K, Akeda Y, Nakagawa-Nakamura T, Nishino T, Ishihara K, Jinno-Oue A, Inoue S.mSphere. 2025 Mar 18:e0103324. doi: 10.1128/msphere.01033-24. Online ahead of print.PMID: 40099899

Impact of the 10-valent pneumococcal conjugate **vaccine** (PCV10) on pneumococcal carriage in healthy children and children with acute otitis media and pneumonia: emergence of serotypes 3, 6C and 19A in Croatia.

Krajcar N, Trkulja V, Butić I, Tešović G; Pneumococcal CROcarriage Study Group.Vaccine. 2025 Mar 19;50:126848. doi: 10.1016/j.vaccine.2025.126848. Epub 2025 Feb 7.PMID: 39921981

Tackling cutaneous herpes simplex virus disease with topical immunomodulators-a call to action.

Duarte LF, Carbone-Schellman J, Bueno SM, Kalergis AM, Riedel CA, González PA.Clin Microbiol Rev. 2025 Mar 13;38(1):e0014724. doi: 10.1128/cmr.00147-24. Epub 2025 Feb 21.PMID: 39982077

Infecting minds: socio-contextual drivers of **vaccine** perceptions and attitudes among young and older adults living in urban and rural areas in KwaZulu-Natal, South Africa.

Orievulu KS, Frampton S, Matthews PC, Mpanza N, Mjilo T, Nxumalo S, Hordern J, Seeley J.BMC Public Health. 2025 Mar 21;25(1):1086. doi: 10.1186/s12889-025-22181-w.PMID: 40119301

Vaccine hesitancy and acceptance among hemodialysis patients: a cross-sectional study in Turkey.

Sayan Kaya FB, Doğruyol AR, Öztürk H, Canbaz S, Ören Çelik MM.BMC Public Health. 2025 Mar 18;25(1):1037. doi: 10.1186/s12889-025-22206-4.PMID: 40098119

Trained immunity-based mucosal immunotherapies for the prevention of respiratory infections.

Minute L, Montalbán-Hernández K, Bravo-Robles L, Conejero L, Iborra S, Del Fresno C.Trends Immunol. 2025 Mar 19:S1471-4906(25)00055-9. doi: 10.1016/j.it.2025.02.012. Online ahead of print.PMID: 40113536

Immunogenicity and safety of measles-mumps-rubella **vaccine** delivered by the aerosol, intradermal and intramuscular routes in previously vaccinated young adults: a randomized controlled trial protocol.

Saha S, Millier M, Samaranayaka A, Edmonds L, Best E, Ussher J, Anglemyer A, Lee J, Tatley M, Cutts F, van Binnendijk R, McIntyre P.PLoS One. 2025 Mar 21;20(3):e0318893. doi: 10.1371/journal.pone.0318893. eCollection 2025.PMID: 40117230

Factors affecting the impact of COVID-19 vaccination on post COVID-19 conditions among adults: A systematic literature review.

Rudolph AE, Al Akoury N, Bogdanenko N, Markus K, Whittle I, Wright O, Haridy H, Spinardi JR, McLaughlin JM, Kyaw MH.Hum Vaccin Immunother. 2025 Dec;21(1):2474772. doi: 10.1080/21645515.2025.2474772. Epub 2025 Mar 13.PMID: 40079963

Age-related changes in the immune system and challenges for the development of age-specific vaccines.

Doherty TM, Weinberger B, Didierlaurent A, Lambert PH.Ann Med. 2025 Dec;57(1):2477300. doi: 10.1080/07853890.2025.2477300. Epub 2025 Mar 20.PMID: 40110678

Immune response and safety of the adjuvanted recombinant zoster **vaccine** in adults 50 years of age and older in India: A randomized phase 3 trial.

Naficy A, Chugh Y, Tariq M, Hawksworth H, Sankhe LR, Mwakingwe-Omari A.Vaccine. 2025 Mar 19;50:126819. doi: 10.1016/j.vaccine.2025.126819. Epub 2025 Feb 10.PMID: 39923547

Temporal expression classes and functions of vaccinia virus and mpox (monkeypox) virus genes.

Deng Y, Navarro-Forero S, Yang Z.mBio. 2025 Mar 20:e0380924. doi: 10.1128/mbio.03809-24. Online ahead of print.PMID: 40111027

Immunotherapy and vaccine-based approaches for atherosclerosis prevention: a systematic review study.

Shekarchizadeh Esfahani M, Siavash M, Sajad RS, Ramezani Ahmadi A, Karimifar M, Akbari M, Shekarchizadeh M.BMC Cardiovasc Disord. 2025 Mar 20;25(1):201. doi: 10.1186/s12872-025-04634-7.PMID: 40114074

Joint consensus on reducing the burden of invasive meningococcal disease in the Asia-Pacific region.

Liu G, Gonzales MLAM, Chan WH, Memon IA, Alam A, Lee H, Wickramasinghe H, Pham QT, Dayal R, Levin M, Huang YC, Buttery J, Ong-Lim ALT, Kwan MYW.Hum Vaccin Immunother. 2025 Dec;21(1):2477965. doi: 10.1080/21645515.2025.2477965. Epub 2025 Mar 19.PMID: 40104999

Whole-genome sieve analysis: Identification of protective malaria antigens by leveraging allele-specific vaccine efficacy.

Scalsky R, Dwivedi A, Stabler TC, Mbambo G, Ouattara A, Lyke KE, Takala-Harrison S, Silva JC.Vaccine. 2025 Mar 19;50:126783. doi: 10.1016/j.vaccine.2025.126783. Epub 2025 Feb 10.PMID: 39923546

Respiratory Viral Infections From 2015 to 2022 in the HIVE Cohort of American Households: Incidence, Illness Characteristics, and Seasonality.

Monto AS, Foster-Tucker JE, Callear AP, Leis AM, Godonou ET, Smith M, Truscon R, Johnson E, Thomas LJ, Thompson MS, Fry AM, Flannery B, Malosh RE, Petrie JG, Lauring AS, Martin ET.J Infect Dis. 2025 Mar 17;231(3):795-804. doi: 10.1093/infdis/jiae423.PMID: 39179953

How to improve pertussis vaccination in pregnancy: a European expert review.

Finn A, Guiso N, Wirsing von König CH, Martinón-Torres F, Palmu AA, Bonanni P, Bakhache P, Maltezou HC, Van Damme P.Expert Rev Vaccines. 2025 Dec;24(1):175-182. doi: 10.1080/14760584.2025.2473328. Epub 2025 Mar 14.PMID: 40042539

Implementation of school-based vaccination in French middle schools: Efficient or not?

Baldolli A, Fournier A, Roger H, Piednoir E, Clément J, Martin A, Verdon R, Michon J.Vaccine. 2025 Mar 18;55:127007. doi: 10.1016/j.vaccine.2025.127007. Online ahead of print.PMID: 40107131

Extracellular Vesicles: A Review of Their Therapeutic Potentials, Sources, Biodistribution, and Administration Routes.

Su X, Wang H, Li Q, Chen Z.Int J Nanomedicine. 2025 Mar 13;20:3175-3199. doi: 10.2147/IJN.S502591. eCollection 2025.PMID: 40098717

SARS-CoV-2 antibody prevalence in adults living with HIV.

Lucey M, Burns F, Bhagani S, Lipman M, Madge S, Johnson M, Hart J, Smith C, Peppa D, Barber TJ.AIDS. 2025 Mar 13. doi: 10.1097/QAD.0000000000004180. Online ahead of print.PMID: 40080115

[Anti-vaccine attitudes and COVID-19 vaccine status at the end of the U.S. public health emergency.]

Choi J, Feelemyer J, Choe K, Lynch K, McKnight C, Yang LH, Jarlais DD, Chang VW.Vaccine. 2025 Mar 19;55:127003. doi: 10.1016/j.vaccine.2025.127003. Online ahead of print.PMID: 40112553

[Mast cell activators as adjuvants for intranasal mucosal vaccines.]

Murphy CT, Bachelder EM, Ainslie KM.Int J Pharm. 2025 Mar 15;672:125300. doi: 10.1016/j.ijpharm.2025.125300. Epub 2025 Feb 4.PMID: 39914508

[A novel intradermal combination vaccine for PCV2 and Mycoplasma hyopneumoniae protection in swine: its use with Lawsonia intracellularis and PRRSV vaccines.]

Hangalapura BN, Witvliet M, Jacobs AAC, Segers RPAM.Porcine Health Manag. 2025 Mar 13;11(1):14. doi: 10.1186/s40813-025-00426-9.PMID: 40082953

[HPV vaccination is highly effective and cost-effective for cervical cancer prevention in women living with HIV in China: A cost-effectiveness analysis.]

Liu H, Zou M, Shen M, Kamarulzaman A, Chen S, Li J, Li R, Liu H, Zou Z, Zhang L.Int J Cancer. 2025 Mar 15;156(6):1225-1235. doi: 10.1002/ijc.35242. Epub 2024 Nov 17.PMID: 39551969

[Understanding Vaccine Hesitancy at Montefiore Medical Center: Implications for Public Health Preparedness.]

Shapiro J, Block A, Markenson D.Disaster Med Public Health Prep. 2025 Mar 20;19:e63. doi: 10.1017/dmp.2025.55.PMID: 40109151

[A parainfluenza virus 5 (PIV5)-vectored intranasal SARS-CoV-2 vaccine (CVXGA1) elicits protective and long-lasting immunity in nonhuman primates.]

Beavis AC, Xiao P, Gingerich MC, Briggs K, Li G, Howerth EW, Najera M, An D, Huang J, Mousa J, Tompkins SM, Kim G, Harvey SB, Hogan RJ, Lafontaine ER, Villinger FJ, Jin H, He B.J Virol. 2025 Mar 21:e0199024. doi: 10.1128/jvi.01990-24. Online ahead of print.PMID: 40116506

[Efficacy of parainfluenza virus 5 (PIV5)-vectored intranasal COVID-19 vaccine as a single dose primer and booster against SARS-CoV-2 variants.]

Beavis AC, Li Z, Briggs K, Gingerich MC, Wrobel ER, Najera M, An D, Orr-Burks N, Murray J, Patil P, Huang J, Mousa J, Hao L, Hsiang T-Y, Gale M Jr, Harvey SB, Tompkins SM, Hogan RJ, Lafontaine ER, Jin H, He B.J Virol. 2025 Mar 21:e0198924. doi: 10.1128/jvi.01989-24. Online ahead of print.PMID: 40116505

[Current landscape of metal-organic framework-mediated nucleic acid delivery and therapeutics.]

Feng S, Li Y, Tan Z, Shen S.Int J Pharm. 2025 Mar 15;672:125295. doi: 10.1016/j.ijpharm.2025.125295. Epub 2025 Feb 4.PMID: 39914507

Coronavirus disease 2019 (COVID-19) vaccine acceptability in Ghana: An urban-based population study.

Taylor-Abdulai HB, Dzantor EK, Mensah NK, Asumah MN, Ocansey S, Arhin SK, Barnes P, Opoku VO, Mankir ZJ, Famieh SA, Botchey CPK.PLoS One. 2025 Mar 18;20(3):e0319798. doi: 10.1371/journal.pone.0319798. eCollection 2025.PMID: 40100903

Cell membrane-camouflaged nanocarriers: A cutting-edge biomimetic technology to develop cancer immunotherapy.

Samanta R, Haldar N, Pamecha A, Gajbhiye V.Int J Pharm. 2025 Mar 15;672:125336. doi: 10.1016/j.ijpharm.2025.125336. Epub 2025 Feb 11.PMID: 39947362

Commentary and methodological insights: Reaching girls/women, boys/men and vulnerable groups to maximise uptake for the Human papillomavirus vaccine.

Gray Brunton C, Pow J, Carnegie E, Petrova D, Garcia Retamero R, Whittaker A, Todorova I.Hum Vaccin Immunother. 2025 Dec;21(1):2478705. doi: 10.1080/21645515.2025.2478705. Epub 2025 Mar 18.PMID: 40098461

Protocol for designing a peptide-based multi-epitope vaccine targeting monkeypox using reverse vaccine technology.

Kumar A, Nagar G, Bhowmik P, Kumari G, Muduli R, Das M, Chakraborty P, Kaur A, Shikha K, Mukherjee S, Kundu R, Singh IK, Majumdar T.STAR Protoc. 2025 Mar 21;6(1):103671. doi: 10.1016/j.xpro.2025.103671. Epub 2025 Mar 5.PMID: 40053448

Methodological Approaches for Incorporating Marginalized Populations into HPV Vaccine Modeling: A Systematic Review.

Spencer JC, Yanguela J, Spees LP, Odebunmi OO, Ilyasova AA, Biddell CB, Hassmiller Lich K, Mills SD, Higgins CR, Ozawa S, Wheeler SB.Med Decis Making. 2025 Mar 15:272989X251325509. doi: 10.1177/0272989X251325509. Online ahead of print.PMID: 40088125

Respiratory syncytial virus vaccination: likely and less likely outcomes.

Gatt D, Hazan G.Curr Opin Pediatr. 2025 Mar 19. doi: 10.1097/MOP.0000000000001455. Online ahead of print.PMID: 40105190

Future immunisation strategies to prevent Streptococcus pneumoniae infections in children and adults.

Ramos B, Vadlamudi NK, Han C, Sadarangani M.Lancet Infect Dis. 2025 Mar 17:S1473-3099(24)00740-0. doi: 10.1016/S1473-3099(24)00740-0. Online ahead of print.PMID: 40112854

From awareness to acceptance: understanding HPV and vaccine knowledge, attitudes and beliefs among university students in Punjab, Pakistan.

Atif N, Hashmi FK, Malik UR, Ghauri MA, Gillani AH, Kadirhaz M, Jiang M, Chang J, Fang Y.J Pharm Policy Pract. 2025 Mar 19;18(1):2473023. doi: 10.1080/20523211.2025.2473023. eCollection 2025.PMID: 40115541

Costs of delivering COVID-19 vaccine in Botswana during the height of the pandemic: a retrospective study.

Vaughan K, Mokena OT, Rankgoane-Pono G, Keetile M, Griffiths UK.BMC Health Serv Res. 2025 Mar 19;25(1):405. doi: 10.1186/s12913-025-12455-9.PMID: 40108612

Challenges and lessons learned during the switching of rotavirus **vaccine** from Rotarix to Rotavac in Zambia.

Mpabalwani EM, Sakala C, Kamiji E, Simwaka J, Soko J, Kabwe M, Chisanga A, Chisanga K, Sakala J, Kiulia NM, Sakubita P, Kalesha-Masumbu P, Bakyaita N, Worwui AK, Mwenda JM.Vaccine. 2025 Mar 18;55:127012. doi: 10.1016/j.vaccine.2025.127012. Online ahead of print.PMID: 40107130

Advancing local manufacturing capacities for vaccines within Africa - Opportunities, priorities and challenges.

Doua J, Ndembi N, Auerbach J, Kaseya J, Zumla A.Vaccine. 2025 Mar 19;50:126829. doi: 10.1016/j.vaccine.2025.126829. Epub 2025 Feb 5.PMID: 39914258

Costing approaches for **vaccine**-preventable disease surveillance: Lessons from Ethiopia and Nepal.

Darwar R, Huang X, Abayeneh A, Alemayehu Beshah S, Patel MK, Dagnachew Zeleke E, Wossen M, Alayu M, Lisanwork L, Dahl BA, Wassie Asemahaegne E, Wang SH, Pallas SW, Abate E, Mwenda JM, Bose AS, Mejia N.Vaccine. 2025 Mar 19;50:126776. doi: 10.1016/j.vaccine.2025.126776. Epub 2025 Feb 17.PMID: 39965299

Correction for Chen et al., Live-attenuated virus **vaccine** defective in RNAi suppression induces rapid protection in neonatal and adult mice lacking mature B and T cells.

[No authors listed]Proc Natl Acad Sci U S A. 2025 Mar 18;122(11):e2502986122. doi: 10.1073/pnas.2502986122. Epub 2025 Mar 6.PMID: 40048294

Association of Vaccination in Pregnancy With Newborn Hepatitis B **Vaccine** Receipt.

Young Graf Z, Kolagani R, Stetter C, Hausman BL, Cruz AT, Lambert SJ.Perm J. 2025 Mar 14;29(1):84-88. doi: 10.7812/TPP/24.061. Epub 2025 Mar 5.PMID: 40040392

Modelling the mitigation of anti-**vaccine** opinion propagation to suppress epidemic spread: A computational approach.

Alahmadi S, Hoyle R, Head M, Brede M.PLoS One. 2025 Mar 20;20(3):e0318544. doi: 10.1371/journal.pone.0318544. eCollection 2025.PMID: 40111968

A rapid approach for linear epitope **vaccine** profiling reveals unexpected epitope tag immunogenicity.

Browne-Cole K, Hanning KR, Beijerling K, Rousseau M, Loh J, Kelton W.Sci Rep. 2025 Mar 19;15(1):9505. doi: 10.1038/s41598-025-92928-3.PMID: 40108232

mRNA **vaccine**-induced SARS-CoV-2 spike-specific IFN-gamma and IL-2 T-cell responses are predictive of serological neutralization and are transiently enhanced by pre-existing cross-reactive immunity.

Samaan P, Korosec CS, Budylowski P, Chau SLL, Pasculescu A, Qi F, Delgado-Brand M, Tursun TR, Mailhot G, Dayam RM, Arnold CR, Langlois M-A, Mendoza J, Morningstar T, Law R, Mihelic E, Sheikh-Mohamed S, Cao EY, Paul N, Patel A, de Launay KQ, Boyd JM, Takaoka A, Colwill K, Matveev V, Yue FY, McGeer A, Straus S, Gingras A-C, Heffernen JM, Ostrowski M.J Virol. 2025 Mar 18;99(3):e0168524. doi: 10.1128/jvi.01685-24. Epub 2025 Jan 31.PMID: 39887249

Exploring the standardization of human nasal antibody measurements.

Zhang X, Fu Y, Chen S, Liu G, Wang Y, He Q, Wang Q, Li N, Wang Z, Chen L, Wang J, Liang Z, Xu M, Mao Q.Emerg Microbes Infect. 2025 Dec;14(1):2475822. doi: 10.1080/22221751.2025.2475822. Epub 2025 Mar 17.PMID: 40071971

A Longitudinal Analysis of Memory Immune Responses in Convalescent Crimean-Congo Hemorrhagic Fever Survivors in Uganda.

Cohen CA, Balinandi S, Kuehne AI, Rock ML, Bonagofski LG, Ricks KM, Davis I, Abelson D, Stonier SW, Odongo M, Bornholdt ZA, Zeitlin L, Moyer C, Cose S, Dye JM, Lutwama JJ, Herbert AS.J Infect Dis. 2025 Mar 17;231(3):762-772. doi: 10.1093/infdis/jiae395.PMID: 39248523

Analysis of the genetic evolution and recombination of the PRRSV-2 GP2 protein in China from 1996 to 2023.

Liu K, Lv C, He C, Pang J, Lai C, Chen S, Wang R, Kong W, Ma J, Zhao M.Microbiol Spectr. 2025 Mar 19:e0307924. doi: 10.1128/spectrum.03079-24. Online ahead of print.PMID: 40105345

Structural basis of receptor-binding adaptation of human-infecting H3N8 influenza A virus.

Hao T, Xie Y, Chai Y, Zhang W, Zhang D, Qi J, Shi Y, Song H, Gao GF.J Virol. 2025 Mar 18;99(3):e0106524. doi: 10.1128/jvi.01065-24. Epub 2025 Feb 24.PMID: 39992139

Risk of Severe COVID-19 in Four Immunocompromised Populations: A French Expert Perspective.

Loubet P, Benotmane I, Fourati S, Malard F, Vuotto F, Blanchard E, Raffi F, Nguyen S, de Prost N, Avouac J.Infect Dis Ther. 2025 Mar 18. doi: 10.1007/s40121-025-01124-3. Online ahead of print.PMID: 40100618

Deconvoluting the interplay of innate and adaptive immunity in BCG-induced nonspecific and TB-specific host resistance.

Hilligan KL, Darrah PA, Seder RA, Sher A.J Exp Med. 2025 Apr 7;222(4):e20240496. doi: 10.1084/jem.20240496. Epub 2025 Mar 18.PMID: 40100096

Social Connections and COVID19 Vaccination.

Basu AK, Chau NH, Firsin O.Health Econ. 2025 Mar 15. doi: 10.1002/hec.4953. Online ahead of print.PMID: 40088475

Acceptability of the gonorrhoea human challenge model to accelerate vaccine development in UK men.

Firth C, Emary K, Stuart A, Browne R, Williamson M, Francis E, Vanderslott S, Hodgson SH.Vaccine. 2025 Mar 13;54:127013. doi: 10.1016/j.vaccine.2025.127013. Online ahead of print.PMID: 40086037

Orally Antigen-Engineered Yeast Vaccine Elicits Robust Intestinal Mucosal Immunity.

Chen X, Shi T, Chen F, Xie X, Fang H, Wu Z, Liu Y, Huang Y, Wang Q, Nie G, Xu J, Shao D.ACS Nano. 2025 Mar 25;19(11):10841-10853. doi: 10.1021/acsnano.4c14690. Epub 2025 Mar 13.PMID: 40082064

[Factors associated with influenza and COVID-19 vaccination among health workers in Lao PDR, 2023.]

Patthammavong C, Wodniak N, Phounphenghack K, Tengbriacheu C, Soumphonphakdy B, Phixay V, Vongkhamsao C, Khanthamaly V, Patel JC, Montgomery MP, McCarron M, Davis WW, Carlton J, Bazant ES, Moen AC, Nouanthong P.Vaccine. 2025 Mar 14;54:127006. doi: 10.1016/j.vaccine.2025.127006. Online ahead of print.PMID: 40088512

[Effect of lymphocyte miRNA expression on influenza **vaccine**-induced immunity.]

Haralambieva IH, Ratishvili T, Goergen KM, Grill DE, Simon WL, Chen J, Ovsyannikova IG, Poland GA, Kennedy RB.Vaccine. 2025 Mar 23;55:127023. doi: 10.1016/j.vaccine.2025.127023. Online ahead of print.PMID: 40127573

[No sign that **vaccine** advisers are beholden to industry.]

Wadman M.Science. 2025 Mar 14;387(6739):1131-1132. doi: 10.1126/science.adx3892. Epub 2025 Mar 13.PMID: 40080595

[Protocol for evaluating humoral immune responses in mice following SARS-CoV-2 vaccination.]

Zhang Y, Li S, Yu J.STAR Protoc. 2025 Mar 21;6(1):103548. doi: 10.1016/j.xpro.2024.103548. Epub 2025 Jan 15.PMID: 39823234

[Online Discourse and Trends Surrounding HPV Vaccination for Head and Neck Cancer Prevention.]

Meci A, Tseng CC, Jensen Z, Goyal N.Otolaryngol Head Neck Surg. 2025 Mar 19. doi: 10.1002/ohn.1222. Online ahead of print.PMID: 40105426

[COVER-ME: developing and evaluating community-based interventions to promote **vaccine** uptake for COVID-19 and influenza in East London minority ethnicity (ME) and underserved individuals - protocol for a pilot randomised controlled trial.]

Chaudhry T, Tum P, Tam HZ, Brentnall A, Smethurst H, Kielmann K, Kunst H, Hargreaves S, Campbell CNJ, Griffiths C, Zenner D.BMJ Open. 2025 Mar 18;15(3):e092568. doi: 10.1136/bmjopen-2024-092568.PMID: 40107676

[Amid Texas Measles Outbreak, Clinicians Struggle to Offset Increasing **Vaccine** Hesitancy.]

Schweitzer K.JAMA. 2025 Mar 14. doi: 10.1001/jama.2025.2932. Online ahead of print.PMID: 40085106

[General practitioner consultation for postmenopausal bleeding after COVID-19 vaccination-a self-controlled cohort study.]

Jajou R, van Puijenbroek EP, Veldkamp R, Overbeek JA, van Hunsel FPAM, Kant AC.Br J Clin Pharmacol. 2025 Mar 18. doi: 10.1002/bcp.70045. Online ahead of print.PMID: 40099868

[Molecular characterization of porcine epidemic diarrhea virus in Sichuan from 2023 to 2024.]

Xie B, Yan W, Yang X, Fan H.Microb Pathog. 2025 Mar 15;203:107486. doi: 10.1016/j.micpath.2025.107486. Online ahead of print.PMID: 40097028

A strain-transcending anti-AMA1 human monoclonal antibody neutralizes malaria parasites independent of direct RON2L receptor blockade.

Patel PN, Diouf A, Dickey TH, Tang WK, Hopp CS, Traore B, Long CA, Miura K, Crompton PD, Tolia NH.Cell Rep Med. 2025 Mar 18;6(3):101985. doi: 10.1016/j.xcrm.2025.101985. Epub 2025 Feb 27.PMID: 40020675

Estimation and Hypothesis Testing of Strain-Specific Vaccine Efficacy With Missing Strain Types With Application to a COVID-19 Vaccine Trial.

Heng F, Sun Y, Li L, B Gilbert P.Stat Med. 2025 Mar 15;44(6):e10345. doi: 10.1002/sim.10345.PMID: 40072429

A Narrative Review of Periodontal Vaccines: Hope or Hype?

Patel P, Patel B, Vyas SD, Patel MS, Hirani T, Haque M, Kumar S.Cureus. 2025 Mar 15;17(3):e80636. doi: 10.7759/cureus.80636. eCollection 2025 Mar.PMID: 40091902

Healthcare Professionals' Knowledge, Attitudes, and Practices Regarding Respiratory Syncytial Virus Disease and Vaccination in Adults Aged 60 Years and Older.

La EM, Sweeney C, Davenport E, Calhoun S, Harmelink A, Singer D.Infect Dis Ther. 2025 Mar 14. doi: 10.1007/s40121-025-01119-0. Online ahead of print.PMID: 40082339

An αIIbβ3 Ligand-Mimetic Murine Monoclonal Antibody That Produces Platelet Activation by Engaging the FcγIIa Receptor.

Wang J, Buitrago L, Wang L, Li J, Walz T, Coller BS.Blood Adv. 2025 Mar 18:bloodadvances.2024015368. doi: 10.1182/bloodadvances.2024015368. Online ahead of print.PMID: 40101235

Long-Term Immunity after Vaccination against Yellow Fever in Korean Travelers.

Um J, Nix CD, Messer WB, Zhu Y, Park JS, Collins MH, Chin B.Jpn J Infect Dis. 2025 Mar 21;78(2):79-84. doi: 10.7883/yoken.JJID.2023.290. Epub 2024 Nov 29.PMID: 39617485

Investigating Human Liver Tissue-Resident Memory T Cells from the Perspectives of Gastroenterologists and Hepatologists.

Han JW, Shin EC.Gut Liver. 2025 Mar 15;19(2):161-170. doi: 10.5009/gnl240366. Epub 2025 Mar 10.PMID: 40058791

Pregnant women's experiences of and attitudes toward COVID-19 vaccination: A qualitative descriptive study.

Kang HS, Kim SY, De Gagne JC, Chae SM.Vaccine. 2025 Mar 19;50:126835. doi: 10.1016/j.vaccine.2025.126835. Epub 2025 Feb 6.PMID: 39919448

Impact of Universal Varicella Vaccination in Israel: A Time-Series Analysis, 2003 to 2020.

Fallach N, Lasalvia P, Pawaskar M, Chodick G, Greenberg D, Kujawski SA.Pediatr Infect Dis J. 2025 Mar 19. doi: 10.1097/INF.0000000000004787. Online ahead of print.PMID: 40106737

Increasing vaccine uptake in underserved populations using text message interventions: considerations and recommendations.

Judah G.BMJ Qual Saf. 2025 Mar 21:bmjqs-2024-018245. doi: 10.1136/bmjqs-2024-018245. Online ahead of print.PMID: 40118517

NIH has cut one mRNA-vaccine grant. Will more follow?

Kozlov M.Nature. 2025 Mar 21. doi: 10.1038/d41586-025-00828-3. Online ahead of print.PMID: 40119057

Application of in-silico approaches in subunit vaccines: Overcoming the challenges of antigen and adjuvant development.

Tang X, Deng J, He C, Xu Y, Bai S, Guo Z, Du G, Ouyang D, Sun X.J Control Release. 2025 Mar 13;381:113629. doi: 10.1016/j.jconrel.2025.113629. Online ahead of print.PMID: 40086761

Reproduction control in a feral feline population using an anti-GnRH vaccine.

Florencia GM, Romina NF, Cecilia SM, María Carla GM, Ramiro R, Rodolfo Luzbel S, Alejandra SM.Theriogenology. 2025 Mar 15;235:203-209. doi: 10.1016/j.theriogenology.2025.01.017. Epub 2025 Jan 19.PMID: 39855037

Endothelial cell activation enhances thromboinflammation in vaccine-induced immune thrombotic thrombocytopenia.

Dupuy A, Liu X, Kong YX, Qi M, Perdomo J, Fenwick J, Tieng J, Johnston B, Shi QS, Larance M, Zhang Y, Ju LA, Coleman P, Gamble JR, Gardiner EE, Poncz M, Tran HA, Chen VM, Passam FH.Blood Adv. 2025 Mar 14:bloodadvances.2024014165. doi: 10.1182/bloodadvances.2024014165. Online ahead of print.PMID: 40085945

Will RFK Jr's vaccine agenda make America contagious again?

Ledford H.Nature. 2025 Mar 13. doi: 10.1038/d41586-025-00709-9. Online ahead of print.PMID: 40082716

mRNA-based seasonal influenza and SARS-CoV-2 multicomponent vaccine in healthy adults: a phase 1/2 trial.

Rudman Spergel AK, Ananworanich J, Guo R, Deng W, Carmona L, Schaefers K, Paila YD, Kandinov B, Eger CH, Sinkiewicz M, Shao S, Henry C, Shaw CA.Nat Med. 2025 Mar 18. doi: 10.1038/s41591-025-03591-0. Online ahead of print.PMID: 40102593

Spike gene variability in porcine epidemic diarrhea virus as a determinant for virulence.

Li W, Hangalapura BN, van den Elzen P, van den Born E, van Kuppeveld FJM, Rottier PJM, Bosch B-J.J Virol. 2025 Mar 18;99(3):e0216524. doi: 10.1128/jvi.02165-24. Epub 2025 Feb 26.PMID: 40001283

Immunotherapeutic effects of TCL-E5 and TCL-E5-pulsed DCs: two novel HPV therapeutic vaccine candidates.

Ezzatizadeh F, Bolhassani A, Nematalahi FS, Fateh A.Immunotherapy. 2025 Mar 18:1-9. doi: 10.1080/1750743X.2025.2478814. Online ahead of print.PMID: 40099844

[Glycoproteins gM and gN are indispensable factors for rhesus macaque rhadinovirus replication and spread but can be reconstituted by KSHV chimeras.]

Golas G, Park BS, Wong SW.J Virol. 2025 Mar 18;99(3):e0192224. doi: 10.1128/jvi.01922-24. Epub 2025 Feb 25.PMID: 39998253

[Ehrlichia ruminantium (Ehrlichiaceae) infection rates and genotyping in Amblyomma species from southern Africa.]

Smit A, Mulandane FC, Wójcik SH, Malabwa C, Sili G, Mandara S, Pineau KP, Lecollinet S, Exbrayat A, Rodrigues V, Vineer HR, Dlamkile Z, Stoltsz WH, Meyer DF, Morar-Leather D, Makepeace BL, Neves L.Ticks Tick Borne Dis. 2025 Mar 17;16(3):102462. doi: 10.1016/j.ttbdis.2025.102462. Online ahead of print.PMID: 40107067

[Immunogenicity and safety of an Escherichia coli-produced bivalent human papillomavirus vaccine (Cecolin) in girls aged 9-14 years in Ghana and Bangladesh: a randomised, controlled, open-label, non-inferiority, phase 3 trial.]

Agbenyega T, Schuind AE, Adjei S, Antony K, Aponte JJ, Buabeng PBY, Clemens JD, Hossain L, Kemp TJ, Mercer LD, Pinto LA, Qadri F, Sukraw K, Bhat N, Zaman K.Lancet Infect Dis. 2025 Mar 19:S1473-3099(25)00031-3. doi: 10.1016/S1473-3099(25)00031-3. Online ahead of print.PMID: 40120597

[Risk factors for tick infestation and equine Piroplasmosis infection among draught horses in France.]

Nadal C, Chanet C, Delaunay C, Pitel PH, Marsot M, Bonnet SI.Ticks Tick Borne Dis. 2025 Mar 17;16(3):102468. doi: 10.1016/j.ttbdis.2025.102468. Online ahead of print.PMID: 40101594

[Theileria parva genetics, prevalence and vaccination practices in Zimbabwe and the African region and the prospects for vaccine development: a systematic review.]

Mukandabvute D, Paul NH, Songwe F, Chipatiko M, Sakwa LL, Chin'ombe N, Madzingaidzo L.Vet Res Commun. 2025 Mar 19;49(3):146. doi: 10.1007/s11259-025-10715-x.PMID: 40106054

[Exploring the role of the IL-12/IFN-γ immune axis in subacute sclerosing panencephalitis.]

Viswanathan LG, Babu GS, Dey S, Kavya PV, Mullapudi T, Thennarasu K, Ravindranadh M, Kenchaiah R, Nagappa M, Seshagiri D, Asranna A, Sinha S, Debnath M.J Neuroimmunol. 2025 Mar 15;400:578532. doi: 10.1016/j.jneuroim.2025.578532. Epub 2025 Jan 30.PMID: 39955927

[Unlocking the potential of circular RNA vaccines: a bioinformatics and computational biology perspective.]

Liu X, Wang S, Sun Y, Liao Y, Jiang G, Sun BY, Yu J, Zhao D.EBioMedicine. 2025 Mar 19;114:105638. doi: 10.1016/j.ebiom.2025.105638. Online ahead of print.PMID: 40112741

[25 years of palivizumab: a global historic review of its impact on the burden of respiratory syncytial virus disease in children.]

Carbonell-Estrany X, Simões EAF, Bont L, Manzoni P, Zar HJ, Greenough A, Ramilo O, Stein R, Law B, Mejias A, Sanchez Luna M, Checchia PA, Krilov L, Lanari M, Dagan R, Fauroux B, Resch B, Heikkinen T, Domachowske JB, Wildenbeest JG, Martinon-Torres F, Thwaites R, Cetinkaya M, Alharbi AS, Rodriguez-

Martinez CE, Noyola DE, Kassim A, Kusuda S, Kang JM, Rodgers-Gray B, Platonova A, Jah F, Paes B.Expert Rev Anti Infect Ther. 2025 Mar 20. doi: 10.1080/14787210.2025.2481908. Online ahead of print.PMID: 40111069

Lyophilization Strategy Enhances the Thermostability and Field-Based Stability of Conjugated and Comixed Subunit Liposomal Adjuvant-containing Tuberculosis Vaccine Formulation (ID93 + GLA-LSQ).

Adeagbo BA, Alao M, Orherhe O, Akinloye A, Boukes G, Willenburg E, Fenner C, Bolaji OO, Fox CB.Mol Pharm. 2025 Mar 19. doi: 10.1021/acs.molpharmaceut.5c00150. Online ahead of print.PMID: 40105111

COVID-19 Vaccination in Canadian Dental Schools.

Turquete I, Madathil S, Allison PJ.J Public Health Dent. 2025 Mar 21. doi: 10.1111/jphd.12670. Online ahead of print.PMID: 40118795

Identification of Coccidioidomycosis immunoreactive peptides that recall T-cell responses indicating past exposure.

Kala M, Ndiaye MDB, Kelley E, Harvey M, Babur F, Grischo G, Marshall JS, Yi J, Engelbrektson AL, Altin JA, Barker BM, Keim P, Knox KS, Settles EW.J Infect Dis. 2025 Mar 17:jiaf118. doi: 10.1093/infdis/jiaf118. Online ahead of print.PMID: 40094390

Surface display of LukF-PV on *Bacillus subtilis* spore for oral administration.

Nguyen NN, Duong L, Doan MB, Nguyen HD.Future Microbiol. 2025 Mar 21:1-9. doi: 10.1080/17460913.2025.2480933. Online ahead of print.PMID: 40116634

Genetic manipulation for the non-model protozoan *Eimeria*: Advancements, challenges, and future perspective.

Li Y, Suo J, Liang R, Liang L, Liu X, Ding J, Suo X, Tang X.iScience. 2025 Feb 17;28(3):112060. doi: 10.1016/j.isci.2025.112060. eCollection 2025 Mar 21.PMID: 40109377

Are health education effective to improve herpes zoster vaccine willingness in vulnerable elderly.

Zhang X, Zhao T, Cai X, Zhang W, Huang N, Du J, Zeng J, Lu QB, Zhang Y, Cui F.Vaccine. 2025 Mar 15;54:126975. doi: 10.1016/j.vaccine.2025.126975. Online ahead of print.PMID: 40090211

Single-cell spatial transcriptomics unravels cell states and ecosystems associated with clinical response to immunotherapy.

Abdulrahman Z, Slieker RC, McGuire D, Welters MJP, van Poelgeest MIE, van der Burg SH.J Immunother Cancer. 2025 Mar 13;13(3):e011308. doi: 10.1136/jitc-2024-011308.PMID: 40081939

Understanding vaccine hesitancy: Insights from social media on polio, human papilloma virus, and COVID-19 in Zambia.

Munjita SM.Digit Health. 2025 Mar 18;11:20552076251326131. doi: 10.1177/20552076251326131. eCollection 2025 Jan-Dec.PMID: 40109405

Annual variant-targeted vaccination to prevent severe COVID-19 disease in cohorts with vaccine-derived and hybrid immunity.

Kelly JD, Hoggatt KJ, Lo NC, Leonard S, Boscardin WJ, Kim HS, Lum EN, Austin CC, Byers AL, Tien PC, Austin PC, Bravata DM, Keyhani S.Clin Infect Dis. 2025 Mar 14:ciaf124. doi: 10.1093/cid/ciaf124. Online ahead of print.PMID: 40084406

Attitudes and beliefs about vaccination among adults in the United States: A real-world, cross-sectional, web-based survey study.

Eiden AL, Mackie DS, Modi K, Drakeley S, Mercadante AR, Bhatti A, DiFranzo A.Vaccine. 2025 Mar 19;50:126807. doi: 10.1016/j.vaccine.2025.126807. Epub 2025 Feb 1.PMID: 39893768

Vaccine Strain Rubella Granuloma in a Patient With Primary Immunodeficiency.

Ollech A, Mandola AB.J Allergy Clin Immunol Pract. 2025 Mar 14:S2213-2198(25)00203-X. doi: 10.1016/j.jaip.2025.02.030. Online ahead of print.PMID: 40088224

Genetic, Phylogenetic, and Serological Analysis of a Getah Virus Strain Isolated from Culex tritaeniorhynchus Mosquitoes in Nagasaki, Japan in 2022.

Matsumura R, Bannai H, Nemoto M, Higa Y, Kai I, Sasaki T, Futami K, Yoshikawa A, Fujita R, Hino M, Nagata K, Kuwata R, Kaku Y, Kobayashi D, Minakawa N, Kasai S, Itoyama K, Maeda K, Isawa H.Jpn J Infect Dis. 2025 Mar 21;78(2):71-78. doi: 10.7883/yoken.JJID.2024.250. Epub 2024 Nov 29.PMID: 39617482

Unveiling the Drivers of Polio Vaccine Uptake: Insights from a Multi-Country Study of 37 Nations in Sub-Saharan Africa.

Antehunegn Tesema G, Sarfo M, Okeke SR, Ameyaw EK, Yaya S.PLoS One. 2025 Mar 19;20(3):e0316884. doi: 10.1371/journal.pone.0316884. eCollection 2025.PMID: 40106450

Development of a messenger RNA vaccine using pH-responsive dipeptide-conjugated lipids exhibiting reduced inflammatory properties.

Matayoshi K, Takahashi S, Ryu S, Koide H, Yonezawa S, Ozaki N, Kurata M, Asai T.Int J Pharm. 2025 Mar 16;674:125485. doi: 10.1016/j.ijpharm.2025.125485. Online ahead of print.PMID: 40101873

Targeted nasal delivery of LNP-mRNAs aerosolised by Rayleigh breakup technology.

Li HY, Paramanandana A, Kim SY, Granger L, Raimi-Abraham BT, Shattock R, Makatsoris C, Forbes B.Int J Pharm. 2025 Mar 15;672:125335. doi: 10.1016/j.ijpharm.2025.125335. Epub 2025 Feb 9.PMID: 39933606

Miniaturized assay to evaluate Plasmodium cynomolgi and P. knowlesi as models for prioritizing P. vivax vaccine targets.

Dass S, Kundu P, Naskar D, Kanjee U, Ferreira MU, Rayner JC, Duraisingh MT.J Infect Dis. 2025 Mar 14:jiaf136. doi: 10.1093/infdis/jiaf136. Online ahead of print.PMID: 40083318

Bivalent Hapten Display Strategies for Conjugate Vaccines Targeting Opioid Mixtures Containing Fentanyl.

Baehr C, Jahan R, Gebo A, Vigliaturo J, Song D, Rahman MT, Tronconi D, Khaimraj A, Seaman R, Marecki C, Kim CM, Persano S, Runyon SP, Pravetoni M.Bioconjug Chem. 2025 Mar 16. doi: 10.1021/acs.bioconjchem.4c00548. Online ahead of print.PMID: 40091228

[Debunking COVID-19 **vaccine** misinformation with an audio drama in Ghana, a randomized control trial.]

Winters M, Christie S, Melchinger H, Iddrisu I, Al Hassan H, Ewart E, Mosley L, Alhassan R, Shani N, Nyamuame D, Lepage C, Thomson A, Atif AN, Omer SB.Sci Rep. 2025 Mar 15;15(1):8955. doi: 10.1038/s41598-025-92731-0.PMID: 40089600

[Targeting HIV-1 conserved regions: An immunoinformatic pathway to **vaccine** innovation for the Asia.]

Zubair A, Al-Emam A, Ali M, Hussain SM, Elmagzoub RM.PLoS One. 2025 Mar 21;20(3):e0317382. doi: 10.1371/journal.pone.0317382. eCollection 2025.PMID: 40117271

[Reduced risks of influenza-associated hospitalization and complications following vaccination among over 2 million older individuals: a nationwide study using target trial emulation framework.]

Peng ZY, Hua YT, Huang WT, Wu JS, Ou HT.BMC Med. 2025 Mar 13;23(1):157. doi: 10.1186/s12916-025-03955-w.PMID: 40082958

[The Effects of Vaccination Status and Age on Clinical Characteristics and Severity of Measles Cases in the United States in the Postelimination Era, 2001-2022.]

Leung J, Munir NA, Mathis AD, Filardo TD, Rota PA, Sugerman DE, Sowers SB, Mercader S, Crooke SN, Gastañaduy PA.Clin Infect Dis. 2025 Mar 17;80(3):663-672. doi: 10.1093/cid/ciae470.PMID: 39271123

[Changes in Epidemiology in Pediatric Invasive Group A Streptococcal Infections in Ireland During the 2022-2023 Outbreak.]

Foley DJ, Cotter O, Davidson L, Lawler M, Walsh AM, Cloak F, Ward M, Meehan M, Cunney R, Martin C, McKeown P, Fallon U, Ó Maoldomhnaigh C.Pediatr Infect Dis J. 2025 Mar 17. doi: 10.1097/INF.0000000000004746. Online ahead of print.PMID: 40106787

[Molecular mechanisms of surface antigen suppression by ApiAP2 and its implications for **vaccine** development.]

Li P, Su R, Ren G, Si H, Song X, Hu D.Vet Res. 2025 Mar 22;56(1):63. doi: 10.1186/s13567-025-01491-2.PMID: 40121506

[Effectiveness of the Pfizer-BioNTech (BNT162b2) **vaccine** against the omicron variant of SARS-CoV-2 among adults aged 50 and above: A case-control study in Lebanon, June 2022.]

Baakliny M, Ghosn N, Saleh N, Maison P.PLoS One. 2025 Mar 20;20(3):e0318344. doi: 10.1371/journal.pone.0318344. eCollection 2025.PMID: 40112019

[Diversifying T-cell responses: safeguarding against pandemic influenza with mosaic nucleoprotein.]

Park H, Kingstad-Bakke B, Cleven T, Jung M, Kawaoka Y, Suresh M.J Virol. 2025 Mar 18;99(3):e0086724. doi: 10.1128/jvi.00867-24. Epub 2025 Feb 3.PMID: 39898643

[Correction to: Radiographically confirmed pneumonia in Malawian children and associated Pneumococcal carriage after introduction of the 13-valent Pneumococcal conjugate vaccine.]

Mzumara G, Chirombo J, D Swarthout T, Bar-Zeev N, Prisca Harawa P, Sanusi Jalloh M, Kirolos A, Mukhula V, Newberry L, Ogunlade O, Wachepa R, French N, S Heyderman R, Iroh Tam PY.Pneumonia (Nathan). 2025 Mar 21;17(1):11. doi: 10.1186/s41479-025-00161-3.PMID: 40119482

[Generative AI for vaccine misbelief correction: Insights from targeting extraversion and pseudoscientific beliefs.]

Lu H.Vaccine. 2025 Mar 13;54:127018. doi: 10.1016/j.vaccine.2025.127018. Online ahead of print.PMID: 40086038

[Differences in Characteristics, Treatments, and Mortality of Patients with COVID-19 Between 2022 and 2020-2021.]

Aso S, Ono S, Michihata N, Uemura K, Yasunaga H.Jpn J Infect Dis. 2025 Mar 21;78(2):85-90. doi: 10.7883/yoken.JJID.2024.272. Epub 2024 Nov 29.PMID: 39617481

[Role of risk perceptions and vaccine hesitancy on decision-making among low-income mothers in Kenya: a qualitative study.]

Kimotho SG.BMJ Public Health. 2025 Mar 13;3(1):e001601. doi: 10.1136/bmjph-2024-001601. eCollection 2025 Jan.PMID: 40099134

[Complement-mediated enhancement of SARS-CoV-2 antibody neutralisation potency in vaccinated individuals.]

Mellors J, Dhaliwal R, Longet S, Tipton T; OCTAVE Consortium; OPTIC Consortium; Barnes E, Dunachie SJ, Klenerman P, Hiscox J, Carroll M.Nat Commun. 2025 Mar 18;16(1):2666. doi: 10.1038/s41467-025-57947-8.PMID: 40102474

[Optimizing mRNA translation efficiency through rational 5'UTR and 3'UTR combinatorial design.]

Li T, Liu G, Bu G, Xu Y, He C, Zhao G.Gene. 2025 Mar 20;942:149254. doi: 10.1016/j.gene.2025.149254. Epub 2025 Jan 15.PMID: 39824328

[Next-generation immunotherapeutic strategy and clinical advances of vaccines against nicotine addiction.]

Yan K, Xu S, Fang H, Yang H, Su D.Vaccine. 2025 Mar 23;55:127036. doi: 10.1016/j.vaccine.2025.127036. Online ahead of print.PMID: 40127570

[PLS-α-GalCer: a novel targeted glycolipid therapy for solid tumors.]

Burks J, Tiwary S, Stevens DM, Skoczen SL, Kularatne RN, Stern ST, Berzofsky JA.J Immunother Cancer. 2025 Mar 22;13(3):e009539. doi: 10.1136/jitc-2024-009539.PMID: 40121031

[mRNA-LNP vaccine strategies: Effects of adjuvants on non-parenchymal liver cells and tolerance.]

Svensson M, Limeres MJ, Zeyn Y, Gambaro RC, Islan GA, Berti IR, Fraude-El Ghazi S, Pretsch L, Hilbert K, Schneider P, Kaps L, Bros M, Gehring S, Cacicedo ML.Mol Ther Methods Clin Dev. 2025 Feb 4;33(1):101427. doi: 10.1016/j.omtm.2025.101427. eCollection 2025 Mar 13.PMID: 40027262

[Computationally designed multi-epitope **vaccine** construct targeting the SARS-CoV-2 spike protein elicits robust immune responses in silico.]

Deepthi V, Sasikumar A, Mohanakumar KP, Rajamma U.Sci Rep. 2025 Mar 20;15(1):9562. doi: 10.1038/s41598-025-92956-z.PMID: 40108271

[A rapid human **vaccine** process development map outlining lessons learnt from ChAdOx1 nCoV-19 **vaccine** during the COVID-19 pandemic.]

Francis MJ.Vaccine. 2025 Mar 23;55:127040. doi: 10.1016/j.vaccine.2025.127040. Online ahead of print.PMID: 40127572

[Pediatric **Vaccine**-Induced Antibody Thresholds: Rethinking Pre-Immunosuppression Serologic Testing and Revaccination Implications.]

Freeman MC, Sinder A, Conway G, Chamseddine S, Nassar MF, Wheeler BJ, Anderson A, Wheeler SE.Clin Chem. 2025 Mar 19:hvaf020. doi: 10.1093/clinchem/hvaf020. Online ahead of print.PMID: 40105237

[Safety, reactogenicity, and immunogenicity of MTBVAC in infants: a phase 2a randomised, double-blind, dose-defining trial in a TB endemic setting.]

Tameris M, Rozot V, Imbratta C, Geldenhuys H, Mendelsohn SC, Kany Luabeya AK, Shenje J, Tredoux N, Fisher M, Mulenga H, Bilek N, Young C, Veldsman A, Botes N, Thole J, Fritzell B, Mukherjee R, Jelsbak IM, Rodriguez E, Puentes E, Doce J, Marinova D, Gonzalo-Asensio J, Aguilo N, Martin C, Scriba TJ, Hatherill M; MTBVAC 202 study team.EBioMedicine. 2025 Mar 17;114:105628. doi: 10.1016/j.ebiom.2025.105628. Online ahead of print.PMID: 40101388

[Effectiveness and coverage of COVID-19 vaccination among the infection-naive population: A community-based retrospective cohort study in China.]

Fu Y, Xu Z, Wang Q, Zhang J, Han P, Nie Z, Zhu Z, Tan Y, Zhao J, Wang Q, Liu Q, Wei X, Hou Z, Guo J, Yang L.Vaccine. 2025 Mar 19;50:126836. doi: 10.1016/j.vaccine.2025.126836. Epub 2025 Feb 10.PMID: 39923544

[In-vitro evaluation of cationic Lipopeptides as adjuvant candidate for DNA plasmid **vaccine**.]

Hasbullah SF, Hidayat AT, Tarwadi, Fajri AN, Nurlelasari, Harneti D, Farabi K, Supratman U, Maharani R.Bioorg Med Chem Lett. 2025 Mar 14;122:130183. doi: 10.1016/j.bmcl.2025.130183. Online ahead of print.PMID: 40090497

[Differential efficacy of first licensed western vaccines protecting without immunopathogenesis Wuhan-1-challenged hamsters from severe COVID-19.]

Ebenig A, Lange MV, Gellhorn Serra M, Kupke A, Plesker R, Qu B, Brown RJP, Maier TJ, Mühlebach MD.NPJ Vaccines. 2025 Mar 17;10(1):51. doi: 10.1038/s41541-025-01100-5.PMID: 40097436

Bioinformatics analysis, immunogenicity, and therapeutic efficacy evaluation of a novel multi-stage, multi-epitope DNA vaccine for tuberculosis.

Guo J, Jia Z, Yang Y, Wang N, Xue Y, Xiao L, Wang F, Wang L, Wang X, Liu Y, Wang J, Gong W, Zhao H, Liang Y, Wu X.Int Immunopharmacol. 2025 Apr 16;152:114415. doi: 10.1016/j.intimp.2025.114415. Epub 2025 Mar 13.PMID: 40086060

IL-8 as a Causal Link Between Aging and Impaired Influenza Antibody Responses in Older Adults.

Quach HQ, Goergen KM, Grill DE, Ovsyannikova IG, Poland GA, Kennedy RB.J Infect Dis. 2025 Mar 17:jiaf148. doi: 10.1093/infdis/jiaf148. Online ahead of print.PMID: 40091229

A Polymeric mRNA Vaccine Featuring Enhanced Site-Specific mRNA Delivery and Inherent STING-Stimulating Performance for Tumor Immunotherapy.

Guo X, Yang Z, Guo Z, Lai H, Meng H, Meng M, Li T, Li Z, Chen J, Feng Y, Pang X, Tian H, Chen X.Adv Mater. 2025 Mar 17:e2410998. doi: 10.1002/adma.202410998. Online ahead of print.PMID: 40095378

Galloylated Toll-Like Receptor 7/8 Agonist Nanovaccine for Enhanced Tumor Antigen Delivery in Personalized Immunotherapy.

Ma M, Li X, Zhong M, Li X, Yu J, Wang Z, Lv Q, Li X, He Z, Liu H, Wang Y.ACS Nano. 2025 Mar 18. doi: 10.1021/acsnano.4c15442. Online ahead of print.PMID: 40102033

The Emergent Invasive Serotype 4 ST10172 Strain Acquires vanG-Type Vancomycin-Resistance Element: A Case of a 66-Year-Old With Bacteremic Pneumococcal Pneumonia.

Chochua S, Beall B, Lin W, Tran T, Rivers J, Li Z, Arvay ML, Kobayashi M, Houston J, Arias S, McGee L.J Infect Dis. 2025 Mar 17;231(3):746-750. doi: 10.1093/infdis/jiae393.PMID: 39116351

Better, worse, or holding the course? Analysis of HPV vaccination patterns in the US, 2008-2020.

Porter RM, Bednarczyk RA.Vaccine. 2025 Mar 19;50:126824. doi: 10.1016/j.vaccine.2025.126824. Epub 2025 Feb 5.PMID: 39914259

Acceptance of a malaria vaccine among caregivers of sick children under 5 years of age in Burundi.

Ntihebuwayo E, Nimpagaritse M, Bizimana T, Banzimana S, Kabura D, Sinarinzi P, Asingizwe D.Malar J. 2025 Mar 20;24(1):90. doi: 10.1186/s12936-025-05327-4.PMID: 40114138

Humoral immune response to 10-valent pneumococcal conjugate vaccine (PCV10) in individuals with type 2 diabetes mellitus.

Ahmad I, Burton R, Arshad R, Younis BB, Mirza S.Vaccine. 2025 Mar 23;55:127029. doi: 10.1016/j.vaccine.2025.127029. Online ahead of print.PMID: 40127571

Protective efficacy of a bivalent equine influenza H3N8 virus-like particle vaccine in horses.

O'Kennedy MM, Reedy SE, Abolnik C, Khan A, Smith T, du Preez I, Olajide E, Daly J, Cullinane A, Chambers TM.Vaccine. 2025 Mar 19;50:126861. doi: 10.1016/j.vaccine.2025.126861. Epub 2025 Feb 11.PMID: 39938315

[Revising US MMR Vaccine Recommendations Amid Changing Domestic Risks.]

Rader B, Walensky RP, Rogers WS, Brownstein JS.JAMA. 2025 Mar 14. doi: 10.1001/jama.2025.3867. Online ahead of print.PMID: 40085113

[Population-based estimates of hepatitis E virus associated mortality in Bangladesh.]

Paul RC, Gidding HF, Nazneen A, Banik KC, Sumon SA, Paul KK, Akram A, Uzzaman MS, Tejada-Strop A, Kamili S, Luby SP, Hayen A, Gurley ES.J Infect Dis. 2025 Mar 13:jiaf134. doi: 10.1093/infdis/jiaf134. Online ahead of print.PMID: 40080680

[Isolation, molecular detection, and sequence analysis of Avibacterium paragallinarum from suspected cases of infectious coryza infected chickens from different areas of Ethiopia, 2022-2024.]

Deresse G, Assefa E, Tesfaw L, Dufera D, Adamu K, Akalu M, Bayissa B, Abayneh T, Zewdie G, Abebe A, Jemal M, Megra A, Legesse A, Birhanu K, Gelaye E.BMC Microbiol. 2025 Mar 15;25(1):141. doi: 10.1186/s12866-025-03862-3.PMID: 40087555

[Elucidating the porous structure of aluminum adjuvants via in-situ small-angle scattering technique.]

Rinee KC, Patton ZE, Gillilan RE, Huang Q, Pingali SV, Heroux L, Xu AY.Vaccine. 2025 Mar 19;50:126813. doi: 10.1016/j.vaccine.2025.126813. Epub 2025 Feb 5.PMID: 39914255

[The Vaccine Cold Chain in North Korea: Assessing the Capacity to Store Routine Vaccines and Potential to Support Pandemic Vaccination Activities.]

Sempungu JK, Choi M, Lee EH, Kim MH, Han JH, Lee YH.J Korean Med Sci. 2025 Mar 17;40(10):e36. doi: 10.3346/jkms.2025.40.e36.PMID: 40098491

[A Severe Case of Rhabdomyolysis Requiring Renal Replacement Therapy Following COVID-19 mRNA Vaccination.]

Ueda M, Uchimura K, Ohkoshi K, Saegusa N, Osano K, Yoshida S, Konishi M, Ishii T, Takahashi K, Nakashima A.Intern Med. 2025 Mar 15. doi: 10.2169/internalmedicine.4835-24. Online ahead of print.PMID: 40090719

[Expanding human papillomavirus vaccine options.]

Vorsters A, Amponsah-Dacosta E.Lancet Infect Dis. 2025 Mar 19:S1473-3099(25)00144-6. doi: 10.1016/S1473-3099(25)00144-6. Online ahead of print.PMID: 40120598

[Dual mRNA nanoparticles strategy for enhanced pancreatic cancer treatment and β-elemene combination therapy.]

Zhu Q, Yu C, Chen Y, Luo W, Li M, Zou J, Xiao F, An S, Saiding Q, Tao W, Kong N, Xie T.Proc Natl Acad Sci U S A. 2025 Mar 18;122(11):e2418306122. doi: 10.1073/pnas.2418306122. Epub 2025 Mar 11.PMID: 40067898

[Maximizing Immunopeptidomics-Based Bacterial Epitope Discovery by Multiple Search Engines and Rescoring.]

Willems P, Thery F, Van Moortel L, De Meyer M, Staes A, Gul A, Kovalchuke L, Declercq A, Devreese R, Bouwmeester R, Gabriels R, Martens L, Impens F.J Proteome Res. 2025 Mar 13. doi: 10.1021/acs.jproteome.4c00864. Online ahead of print.PMID: 40080147

[Strategically striving to be more inclusive: A recommendation for gender-neutral human-papillomavirus **vaccine** policies.]

Xu MJ, Okerosi S, Nkya A, Van Loon K.Hum Vaccin Immunother. 2025 Dec;21(1):2480404. doi: 10.1080/21645515.2025.2480404. Epub 2025 Mar 18.PMID: 40098479

[Predicted impact of HPV vaccination and primary HPV screening on precancer treatment rates and adverse pregnancy outcomes in Australia 2010-2070: Modelling in a high income, high vaccination coverage country with HPV-based cervical screening.]

Yuill S, Hall MT, Caruana M, Lui G, Velentzis LS, Smith MA, Wrede CD, Bateson D, Canfell K.Vaccine. 2025 Mar 15;54:126986. doi: 10.1016/j.vaccine.2025.126986. Online ahead of print.PMID: 40090212

[Applying the health belief model (HBM) to understand COVID-19 **vaccine** uptake among youth and young adults: Findings from a 6-month follow-up study in the United States.]

Xu J, Davoudpour S, Phillips G 2nd.Vaccine. 2025 Mar 14;54:127002. doi: 10.1016/j.vaccine.2025.127002. Online ahead of print.PMID: 40088513

[Update on the evolving landscape of pneumococcal capsule types: new discoveries and way forward.]

Ganaie FA, Beall BW, Yu J, van der Linden M, McGee L, Satzke C, Manna S, Lo SW, Bentley SD, Ravenscroft N, Nahm MH.Clin Microbiol Rev. 2025 Mar 13;38(1):e0017524. doi: 10.1128/cmr.00175-24. Epub 2025 Jan 29.PMID: 39878373

[Intention to receive new vaccines post-COVID-19 pandemic among adults and health workers in Lusaka, Zambia.]

Sharma A, Kerkhoff AD, Haambokoma M, Shamoya B, Sikombe K, Simbeza SS, Zulu N, Geng EH, Eshun-Wilsonova I, Le Tourneau N, Pry JM.Vaccine. 2025 Mar 19;50:126846. doi: 10.1016/j.vaccine.2025.126846. Epub 2025 Feb 11.PMID: 39938314

[Evaluation of an Influenza Vaccination Program in the Pediatric Emergency Department.]

Alayari A, Ziniel SI, Hawkins E, Mackenzie J, Rao S.J Pediatr. 2025 Mar 17:114541. doi: 10.1016/j.jpeds.2025.114541. Online ahead of print.PMID: 40107445

[Needle sharpness is minimally affected by **vaccine** vial puncture.]

Tawil JR, Vitello EC, Agostini-Walesch GM, Mitchell JC, Kreisler RE.J Am Vet Med Assoc. 2025 Mar 19:1-7. doi: 10.2460/javma.25.01.0025. Online ahead of print.PMID: 40107237

[SARS-Cov-2 vaccination strategies in hospitalized recovered COVID-19 patients: a randomized clinical trial (VATICO Trial).]

Sábato S, Benet S, Rogers AJ, Murray TA, Skeans M, Mothe B, Paredes R, Mourad A, Kiweewa F, Kamel D, Jain MK, Lutaakome J, Nalubega MG, Sebudde N, Mylonakis E, Braun DL, Hatlen T, Kimuli I, Kitko C, Mugerwa H, Kitonsa J, Kim K, Tien PC, Highbarger J, McCormack AL, Sanchez A, Murray DD, Babiker AG, Davey VJ, Files DC, Gelijns AC, Higgs ES, Kan VL, Matthews GV, Pett SL, Lane HC, Reilly C, Goodman AL, Lundgren JD, Moltó J; ACTIV-3/VATICO study group and the STRIVE Network.Sci Rep. 2025 Mar 22;15(1):9882. doi: 10.1038/s41598-025-92742-x.PMID: 40118946

Pregnancy outcomes following unintentional exposure to TAK-003, a live-attenuated tetravalent dengue **vaccine**.

Rauscher M, Youard Z, Faccin A, Patel SS, Pang H, Zent O.Expert Rev Vaccines. 2025 Mar 18. doi: 10.1080/14760584.2025.2480297. Online ahead of print.PMID: 40099800

MHC-I upregulation by macbecin II in the solid tumors potentiates the effect of active immunotherapy.

Deshpande RP, Wu K, Wu SY, Tyagi A, Smith EC, Kim JW, Watabe K.EMBO Mol Med. 2025 Mar 14. doi: 10.1038/s44321-025-00213-7. Online ahead of print.PMID: 40087501

Embryonic reprogramming of the tumor vasculature reveals targets for cancer therapy.

Huijbers EJM, van Beijnum JR, van Loon K, Griffioen CJ, Volckmann R, Bassez A, Lambrechts D, Nunes Monteiro M, Jimenez CR, Hogendoorn PCW, Koster J, Griffioen AW.Proc Natl Acad Sci U S A. 2025 Mar 25;122(12):e2424730122. doi: 10.1073/pnas.2424730122. Epub 2025 Mar 17.PMID: 40096611

Deletion of B125R increases protection induced by a genotype II African swine fever **vaccine** candidate.

Rathakrishnan A, Reis AL, Moffat K, Goatley L, Viaplana E, Mancera JC, Urniza A, Dixon LK.NPJ Vaccines. 2025 Mar 19;10(1):52. doi: 10.1038/s41541-025-01101-4.PMID: 40108195

Identification of antibodies induced by immunization with the syphilis **vaccine** candidate Tp0751.

Urselli F, Gomez A, Gray MD, Cameron CE, Taylor JJ.Vaccine. 2025 Mar 19;50:126804. doi: 10.1016/j.vaccine.2025.126804. Epub 2025 Feb 4.PMID: 39908783

Genetic associations with measles PRNT and IgG antibody response to MMR vaccination in 6- and 15-month-old children.

Sørensen JK, Jensen A, Zimakoff AC, Vittrup DM, Malon M, Kim S, Hatley EV, Bybjerg-Grauholm J, Kaur S, Pociot F, Stensballe LG, Svensson J.Vaccine. 2025 Mar 19;50:126788. doi: 10.1016/j.vaccine.2025.126788. Epub 2025 Feb 5.PMID: 39914254

SARS-CoV-2 spike antibody levels in lung transplantation recipients versus the spectrum in non-immunocompromised persons.

Shino MY, Ibarrondo FJ, Yang OO.Vaccine. 2025 Mar 19;50:126851. doi: 10.1016/j.vaccine.2025.126851. Epub 2025 Feb 10.PMID: 39929055

Novel, fully human, anti-PfCSP antibodies with potent antimalarial activity using a phage display based strategy.

Parveen S, Rath PP, Tabrez S, Khan S, Singh P, Arkam SZ, Verma S, Ahmad S, Singh SK, Junaid IT, Kumar D, Theisen M, Gupta D, Mohmmed A, Salunke DM, Singh AP, Malhotra P.Vaccine. 2025 Mar 17;54:126993. doi: 10.1016/j.vaccine.2025.126993. Online ahead of print.PMID: 40101454

[Safety and Immunogenicity of an Adjuvanted Clostridioides difficile Vaccine Candidate in Healthy Adults: A Randomized Placebo-Controlled Phase 1 Study.]

Leroux-Roels I, Alhatemi A, Caubet M, De Boever F, de Wergifosse B, El Idrissi M, Ferreira GS, Jacobs B, Lambert A, Morel S, Servais C, Yarzabal JP.J Infect Dis. 2025 Mar 17;231(3):e511-e520. doi: 10.1093/infdis/jiae466.PMID: 39447053

[Concordance between parent-reported and documented COVID-19 vaccination status among hospitalized children and adolescents: Implications for vaccine effectiveness estimates, May 2021-October 2023.]

Hamid S, Simeone RM, Newhams MM, Halasa N, Fleming-Dutra KE, Orzel-Lockwood AO, Wu MJ, Randolph AG, Campbell AP, Zambrano LD; Overcoming COVID-19 Investigators.Vaccine. 2025 Mar 20;54:126891. doi: 10.1016/j.vaccine.2025.126891. Online ahead of print.PMID: 40117941

[Targeting the early life stages of SARS-CoV-2 using a multi-peptide conjugate vaccine.]

Myburgh L, Karsjens H, Blanas A, de Ligt A, van Loon K, Huijbers EJM, van Beijnum JR, Engbersen DJM, Rekiki A, Mignon C, Vratskikh O, Griffioen AW.Vaccine. 2025 Mar 13;54:126989. doi: 10.1016/j.vaccine.2025.126989. Online ahead of print.PMID: 40088511

[50-Fold Adjuvant and 20-Fold Antigen Vaccine Dose Sparing from Nanoliposome Display of a Stabilized Malarial Protein Antigen.]

Song Y, Huang WC, Ivanochko D, Long C, Li Q, Zhou L, Julien JP, Miura K, Lovell JF.ACS Nano. 2025 Mar 18;19(10):10103-10112. doi: 10.1021/acsnano.4c16865. Epub 2025 Mar 1.PMID: 40099532

[Characterization of immunopathological changes in the feather pulp of CVI988-vaccinated pullets challenged with a very virulent plus Marek's disease virus strain.]

Bonorino FC, Garcia Marin JF, Fares A, Khaled N, Emmanuel D, Kulkarni RR, Gimeno I.Avian Pathol. 2025 Mar 13:1-9. doi: 10.1080/03079457.2025.2472838. Online ahead of print.PMID: 40017374

[PLS-α-GalCer: a novel targeted glycolipid therapy for solid tumors.]

Burks J, Tiwary S, Stevens DM, Skoczen SL, Kularatne RN, Stern ST, Berzofsky JA.J Immunother Cancer. 2025 Mar 22;13(3):e009539. doi: 10.1136/jitc-2024-009539.PMID: 40121031

[Influenza vaccine effectiveness in Iceland 2014-2022: A test-negative design.]

Thors V, Vias RD, Björnsdóttir K, Palsdottir EB, Guðfinnsdóttir GK, Haraldsson A.Vaccine. 2025 Mar 19;55:126981. doi: 10.1016/j.vaccine.2025.126981. Online ahead of print.PMID: 40112556

[Synthetic population generation with public health characteristics for spatial agent-based models.]

Von Hoene E, Roess A, Kavak H, Anderson T.PLoS Comput Biol. 2025 Mar 17;21(3):e1012439. doi: 10.1371/journal.pcbi.1012439. Online ahead of print.PMID: 40096065

[Development of a virulent O'nyong'nyong challenge model to determine heterologous protection mediated by a hydrogen peroxide-inactivated chikungunya virus vaccine.]

Weber WC, Streblow ZJ, Andoh TF, Denton M, Raué HP, Amanna IJ, Slifka DK, Kreklywich CN, Arduino I, Sulgey G, Streblow MM, Heise MT, Slifka MK, Streblow DN.PLoS Negl Trop Dis. 2025 Mar 17;19(3):e0012938. doi: 10.1371/journal.pntd.0012938. Online ahead of print.PMID: 40096126

Co-administration of seasonal quadrivalent influenza and COVID-19 vaccines leads to enhanced immune responses to influenza virus and reduced immune responses to SARS-CoV-2 in naive mice.

Abbad A, Yueh J, Yellin T, Singh G, Carreño JM, Clark JJ, Muramatsu H, Tiwari S, Bhavsar D, Alzua GP, Pardi N, Simon V, Krammer F.Vaccine. 2025 Mar 19;50:126825. doi: 10.1016/j.vaccine.2025.126825. Epub 2025 Feb 7.PMID: 39921982

Disparities in anti-SARS-CoV-2 reactivity according to vaccines administered in the era of omicron in Cameroon: Lessons for future outbreak response.

Ngoufack Jagni Semengue E, Takou D, Potesta M, Ndjeyep Djupsa SC, Montesano C, Chenwi CA, Beloumou G, Nka AD, Kengni Ngueko AM, Molimbou E, Etame NK, Gouissi Anguechia DH, Mundo Nayang AR, Tueguem PP, Ndomgue T, Tambe Ayuk Ngwese D, Moko Fotso LG, Tommo Tchouaket CM, Ka'e AC, Fainguem N, Abega Abega CA, Mandeng N, Epee E, Esso L, Etoundi Mballa G, Santoro MM, Z-K Bissek AC, Otokoye Otshudiema J, Alteri C, Boum Ii Y, Marcelin AG, Ceccherini-Silberstein F, Ndjolo A, Perno CF, Kaseya J, Colizzi V, Ndembi N, Fokam J.PLOS Glob Public Health. 2025 Mar 19;5(3):e0004312. doi: 10.1371/journal.pgph.0004312. eCollection 2025.PMID: 40106487

Protocol for flow cytometry immunophenotyping of human antigen-specific T cells by activation-induced marker and Th1 cytokine detection.

Rotta G, Achille V, Bornheimer SJ, Duenas M, Fernandez M, Gatti A, Giron SH, Rio IM, Massanella M, Jiménez DJ, Monserrat J, Pfeifer V, Pichler J, Prietl B, Sourij H, Uras CRM, Vlah S, Fenoglio D.STAR Protoc. 2025 Mar 21;6(1):103343. doi: 10.1016/j.xpro.2024.103343. Epub 2024 Dec 19.PMID: 39705144

New-onset Fulminant Type 1 Diabetes Following COVID-19 Vaccination.

Shigematsu T, Yamaguchi Y, Watanabe T, Tsujimoto K, Sato F, Yamada T, Tsujino M.Intern Med. 2025 Mar 22. doi: 10.2169/internalmedicine.5053-24. Online ahead of print.PMID: 40128995

The Cleveland Clinic Post-ICU Recovery Clinic: Early Experience During the COVID-19 Pandemic.

Kommaraju K, Torbic H, Veith J, Wang X, Biehl M.J Intensive Care Med. 2025 Mar 23:8850666251326551. doi: 10.1177/08850666251326551. Online ahead of print.PMID: 40123228

The Mediterranean sea bass Dicentrarchus labrax: A marine model species in fish immunology.

Picchietti S, Pianese V, Fausto AM, Scapigliati G.Fish Shellfish Immunol. 2025 Mar 20;161:110288. doi: 10.1016/j.fsi.2025.110288. Online ahead of print.PMID: 40120781

Poly(3,4-ethylenedioxythiophene) Nanorod Arrays-Based Organic Electrochemical Transistor for SARS-CoV-2 Spike Protein Detection in Artificial Saliva.

Ali SA, Chen YL, Tseng HS, Ayalew H, She JW, Gautam B, Tu HL, Hsiao YS, Yu HH.ACS Sens. 2025 Mar 13. doi: 10.1021/acssensors.4c03207. Online ahead of print.PMID: 40080450

Modelling the impact and cost effectiveness of universal varicella vaccination in England.

Adams L, Karachaliou Prasinou A, Trotter C.Vaccine. 2025 Mar 19;50:126831. doi: 10.1016/j.vaccine.2025.126831. Epub 2025 Feb 12.PMID: 39946866

A functional enzymatic assay as potential readout for a clinical trial of a schistosomiasis vaccine.

Kifle DW, Balkhi MY, Ono Y, Davis J, Doi N, Arya A, Kim J, Kalyanasundaram A, Nandy S, Rakotozandrindrainy N, Staker B, Craig J, Rakotozandrindrainy R, Tadesse BT, Marks F, Jackson L, Carter D, Gray SA, Siddiqui AA.NPJ Vaccines. 2025 Mar 13;10(1):48. doi: 10.1038/s41541-024-01044-2.PMID: 40082479

Operational challenges and lessons learned from conducting febrile surveillance in a long-term randomized dengue vaccine trial in Latin America and Asia-Pacific.

Pfaar H, López-Medina E, Escudero I, Hutagalung Y, Roubinis N, Thakrar S, Corazon Borja-Tabora CF, Tricou V, Tuboi S.Travel Med Infect Dis. 2025 Mar 20:102840. doi: 10.1016/j.tmaid.2025.102840. Online ahead of print.PMID: 40120920

P robiotics i nfluencing r esponse of a ntibodies over t ime in s eniors after CO VID-19 v accine (PIRATES-COV): a randomised controlled trial protocol.

Pasquier JC, Plourde M, Ramanathan S, Chaillet N, Boivin G, Laforest-Lapointe I, Allard-Chamard H, Baron G, Beaulieu JF, Fülöp T, Généreux M, Mâsse B, Robitaille J, Valiquette L, Bilodeau S, H Buch D, Piche A.BMJ Open. 2025 Mar 18;15(3):e088231. doi: 10.1136/bmjopen-2024-088231.PMID: 40107677

Vaccine Effectiveness Against Anal HPV Among Men Who Have Sex With Men Aged 18-45 Years Attending Sexual Health Clinics in 3 United States Cities, 2018-2023.

DeSisto CL, Winer RL, Querec TD, Dada D, Pathela P, Asbel L, Lin J, Tang J, Iqbal A, Meites E, Unger ER, Markowitz LE.J Infect Dis. 2025 Mar 17;231(3):751-761. doi: 10.1093/infdis/jiae394.PMID: 39122662

Transcriptome analysis in human breast milk and blood in a randomized trial after inactivated or attenuated influenza immunization.

Schlaudecker EP, Jensen TL, Gelber CE, Dexheimer PJ, Steinhoff MC, Bernstein DI, Goll JB.NPJ Vaccines. 2025 Mar 20;10(1):53. doi: 10.1038/s41541-025-01072-6.PMID: 40108125

A phase 3 randomized safety and immunogenicity trial of mRNA-1010 seasonal influenza vaccine in adults.

Soens M, Ananworanich J, Hicks B, Lucas KJ, Cardona J, Sher L, Livermore G, Schaefers K, Henry C, Choi A, Avanesov A, Chen R, Du E, Pucci A, Das R, Miller J, Nachbagauer R.Vaccine. 2025 Mar 19;50:126847. doi: 10.1016/j.vaccine.2025.126847. Epub 2025 Feb 7.PMID: 39919447

Uptake and determinants of routine vaccines among children aged 12-23 months in adansi South district of Ghana. a cross-sectional study.

Sem S, Sarfo JO, Amoadu M, Hormenu T.BMC Pediatr. 2025 Mar 17;25(1):198. doi: 10.1186/s12887-025-05559-y.PMID: 40091011

Leveraging core proteome data of Kingella kingae for multi-epitope **vaccine** design against TonB dependent receptor (TDR): an in silico approach.

Alshamrani S, Mashraqi MM, Alzamami A, Alturki NA, Almasoudi HH, Ahmed I, Basharat Z.J Biomol Struct Dyn. 2025 Mar 19:1-18. doi: 10.1080/07391102.2025.2480263. Online ahead of print.PMID: 40105736

Linked empirical studies reveal the cumulative impact of acquired tick resistance across the tick life cycle.

Owen JP, Gibbs A, Jones CR, Brunner JL, Mason K, Noh SM, Scoles GA.Ticks Tick Borne Dis. 2025 Mar 19;16(3):102460. doi: 10.1016/j.ttbdis.2025.102460. Online ahead of print.PMID: 40112618

Human papillomavirus **vaccine**: a welcome addition to the national immunisation schedule in Nepal.

Paudel P.BMJ Glob Health. 2025 Mar 22;10(3):e018723. doi: 10.1136/bmjgh-2024-018723.PMID: 40122530

Overproduction and Characterization of Recombinant Soluble *Trypanosoma brucei* Phospholipase A_2.

Adepoju OA, Quinnell D, Sirohi H, Amlabu E, Sallau AB, Ibrahim A, Atawodi SE, Shuaibu MN, Chang G, Balogun EO.Eng Life Sci. 2025 Mar 20;25(3):e70005. doi: 10.1002/elsc.70005. eCollection 2025 Mar.PMID: 40124852

A randomized phase I trial of intranasal SARS-CoV-2 **vaccine** dNS1-RBD in children aged 3-17 years.

Chu K, Quan J, Liu X, Chen Q, Zang X, Jiang H, Liu D, Chu X, Zhuang C, Han J, Ye X, Pan H, Huang S, Wu T, Zhang J, Xia N.NPJ Vaccines. 2025 Mar 17;10(1):50. doi: 10.1038/s41541-025-01096-y.PMID: 40097460

Challenges and enablers to establishing COVID-19 **vaccine** effectiveness studies in the World Health Organization Africa region: A mixed-methods evaluation of the African region monitoring **vaccine** effectiveness (AFRO-MoVE) network.

Crawley AW, Murphy K, Plumb ID, Ocansey GA, Baffoe-Nyarko I, Nyazema N, Walaza S, Leidman E.Vaccine. 2025 Mar 20:126823. doi: 10.1016/j.vaccine.2025.126823. Online ahead of print.PMID: 40118700

Health system barriers to HPV-vaccination in adolescent females with a Moroccan or Turkish migration background in the Netherlands: A qualitative study.

van Enter BJD, de Zeeuw J, Bakar O, Bakhlakh S, Schim van Der Loeff MF, Boersma C, Edelstein M, Vervoort JPM, Jansen DEMC.Vaccine. 2025 Mar 19;50:126827. doi: 10.1016/j.vaccine.2025.126827. Epub 2025 Feb 4.PMID: 39908781

Sociodemographic and health-related determinants of influenza **vaccine** nonreceipt among US adults: A cross-sectional analysis of the 2022 National Health Interview Survey.

Bhattacharyya R, Katz SJ, Bhattacharyya M, Miller AL, Miller LE.Medicine (Baltimore). 2025 Mar 14;104(11):e41854. doi: 10.1097/MD.0000000000041854.PMID: 40101075

Gastroenteritis hospitalizations over 19 years before and after introduction of rotavirus **vaccine** in Japan: A nationwide claims database.

Yanai T, Yoshida S, Kawakami K.Vaccine. 2025 Mar 17;55:127027. doi: 10.1016/j.vaccine.2025.127027. Online ahead of print.PMID: 40101324

[Haemophilus influenzae remains the predominant otitis media pathogen in Australian children undergoing ventilation tube insertion in the PCV13 era.]

Seppanen EJ, Bayliss J, Clark SL, Gamez C, Headland D, Granland CM, Vijayasekaran S, Herbert H, Friedland P, Richmond PC, Thornton RB, Kirkham LS; OMinWA team.J Infect. 2025 Mar 22:106478. doi: 10.1016/j.jinf.2025.106478. Online ahead of print.PMID: 40127725

[Prevalence, trends, and geographic distribution of human papillomavirus infection in Chinese women: a summative analysis of 2,728,321 cases.]

Han S, Lin M, Liu M, Wu S, Guo P, Guo J, Xie L, Qiu S, Xu A, Cai Y, Chen Y.BMC Med. 2025 Mar 13;23(1):158. doi: 10.1186/s12916-025-03975-6.PMID: 40082952

[The Epidemiology and Burden of Human Parainfluenza Virus Hospitalizations in U.S. Children.]

Weinberg GA, de St Maurice AM, Qwaider YZ, Stopczynski T, Amarin JZ, Stewart LS, Williams JV, Michaels MG, Sahni LC, Boom JA, Spieker AJ, Klein EJ, Englund JA, Staat MA, Schlaudecker EP, Selvarangan R, Schuster JE, Harrison CJ, Derado G, Toepfer AP, Moline HL, Halasa NB, Szilagyi PG.J Pediatric Infect Dis Soc. 2025 Mar 22:piaf026. doi: 10.1093/jpids/piaf026. Online ahead of print.PMID: 40120104

[Evolution of long COVID over two years in hospitalised and non-hospitalised survivors in Bangladesh: a longitudinal cohort study.]

Afroze F, Arafat SM, Ahmed CM, Alam B, Banu S, Islam MZ, Mahfuz M, Qadri F, Bhuiyan TR, Parvin I, Ackhter MM, Islam F, Sultana M, Sultana E, Rahaman MFU, Khan AH, Hasan MN, Ahmed S, Chisti MJ, Ahmed T.J Glob Health. 2025 Mar 14;15:04075. doi: 10.7189/jogh.15.04075.PMID: 40084715

[Antibody Responses and Infection Prevention Following the Sixth Vaccination Using the BA.1 Bivalent COVID-19 Vaccine Among Healthcare Workers During the XBB Variant Dominance in Japan.]

Yahaba M, Asano H, Saito K, Murata S, Kawasaki K, Chiba H, Yokota S, Yoshikawa H, Herai Y, Yamagishi K, Shiko Y, Matsushita K, Hanaoka H, Taniguchi T, Yokote K, Nakajima H, Ido E, Igari H.Jpn J Infect Dis. 2025 Mar 21;78(2):106-109. doi: 10.7883/yoken.JJID.2024.116. Epub 2024 Nov 29.PMID: 39617483

[Factors associated with parents' hesitancy to vaccinate their children against COVID-19: The moderator role of parental anxiety.]

Richard J, Dubé A, Jbilou J, Lachance-Grzela M.J Health Psychol. 2025 Mar 17:13591053251323502. doi: 10.1177/13591053251323502. Online ahead of print.PMID: 40095925

[Early Experience on Universal Prophylaxis in Infants against Respiratory Syncytial Virus: Facts and Expectations.]

Soriano-Arandes A, Creus-Costa A, Perramon-Malavez A, Andrés C, Vila J, Gatell A, Piñana M, Serrano P, González-Sánchez A, Capdevila R, Prats C, Soler-Palacin P, Antón A.Semin Respir Crit Care Med. 2025 Mar 18. doi: 10.1055/a-2531-0968. Online ahead of print.PMID: 39900111

[A Reflection on the Use of Molecular Simulation to Respond to SARS-CoV-2 Pandemic Threats.]

Casalino L, Ramos-Guzmán CA, Amaro RE, Simmerling C, Lodola A, Mulholland AJ, Świderek K, Moliner V.J Phys Chem Lett. 2025 Mar 21:3249-3263. doi: 10.1021/acs.jpclett.4c03654. Online ahead of print.PMID: 40118074

Impact in the humoral and cellular immune response to SARS-CoV-2 variants after primary vaccination with AZD1222/COVISHIELD protocol in healthy adults.

Capão A, Araújo MF, Tort LFL, Toledo TS, Oliveira ACA, Caetano BC, Resende PC, Martins-Filho OA, Ribeiro-Alves M, Grifoni A, Weiskopf D, Sette A, Siqueira MM, Côrtes FH, Garcia CC.Vaccine. 2025 Mar 19;50:126785. doi: 10.1016/j.vaccine.2025.126785. Epub 2025 Feb 11.PMID: 39938313

A pilot study incorporating HER2-directed dendritic cells into neoadjuvant therapy of early stage HER2+ER- breast cancer.

Soliman H, Aldrich A, Abdo N, Han H, Soyano A, Costa R, Armaghani A, Kiluk J, Khakpour N, Lee MC, Hoover S, Laronga C, Niell B, Mooney B, Weinfurtner RJ, Rosa M, Czerniecki B.NPJ Breast Cancer. 2025 Mar 17;11(1):29. doi: 10.1038/s41523-025-00742-x.PMID: 40097486

Patient Opinions and Satisfaction Regarding Pharmacists Delivering Vaccinations in Community Pharmacies.

Religioni U, Vaillancourt R, Kazmierczak J, Blicharska E, Borowska M, Chełstowska B, Pinkas J, Barańska A, Wdowiak K, Neumann-Podczaska A, Plagens-Rotman K, Fehir-Sola K, Pochrzęst-Motyczyńska A, Merks P.J Patient Exp. 2025 Mar 13;12:23743735241309473. doi: 10.1177/23743735241309473. eCollection 2025.PMID: 40092975

Leveraging COVID-19 **vaccine** allergy evaluations with coincident drug allergy delabelling: Effectiveness and impact on quality of life.

Kan AKC, Mak HWF, Chiang V, Yim JSH, Shi W, Li PH.Vaccine. 2025 Mar 19;50:126849. doi: 10.1016/j.vaccine.2025.126849. Epub 2025 Feb 5.PMID: 39914252

Understanding the structural and functional implications of lysine succinylation in Mycobacterium tuberculosis heat shock protein 16.3.

Barik S, Aldar KS, Chakraborty A, Panda AK, Kar RK, Biswas A.Int J Biol Macromol. 2025 Mar 14;307(Pt 3):142046. doi: 10.1016/j.ijbiomac.2025.142046. Online ahead of print.PMID: 40089242

Effective Real-time Transmission Estimations Incorporating Population Viral Load Distributions Amid SARS-CoV-2 Variants and Preexisting Immunity.

Meng Y, Lin Y, Xiong W, Lau EHY, Ho F, Wong JY, Wu P, Tsang TK, Cowling BJ, Yang B.J Infect Dis. 2025 Mar 17;231(3):684-691. doi: 10.1093/infdis/jiae592.PMID: 39601277

Delayed nuclear localization of CRISPR/Cas9-modified fiber of fowl adenovirus serotype 8b reduces pathogenicity in Specific pathogen-free chicken embryonic liver cells.

Ahmed S, Azli B, Abdul Razak M, Hair-Bejo M, Omar AR, Ideris A, Mat Isa N.Microb Pathog. 2025 Mar 15;203:107482. doi: 10.1016/j.micpath.2025.107482. Online ahead of print.PMID: 40097027

Transition of Yellow Fever Immunization Environment in Japan.

Gotoh K, Kakimoto K.J Infect Chemother. 2025 Mar 21:102685. doi: 10.1016/j.jiac.2025.102685. Online ahead of print.PMID: 40122518

Influenza vaccine uptake in socially deprived areas: A multilevel retrospective population-based cross-sectional study using electronic health records in Liverpool, United Kingdom.

Powell A, Jones A, Van Hout MC, Montgomery C.Vaccine. 2025 Mar 19;50:126837. doi: 10.1016/j.vaccine.2025.126837. Epub 2025 Feb 4.PMID: 39908782

Vvax001, a Therapeutic Vaccine, for Patients with HPV16-Positive High-grade Cervical Intraepithelial Neoplasia: A Phase II Trial.

Eerkens AL, Esajas MD, Brummel K, Vledder A, van Rooij N, Plat A, Avalos Haro SB, Paijens ST, Slagter-Menkema L, Schuuring E, Werner N, Kosterink JGW, Kroesen BJ, Wilschut JC, Daemen T, Bart J, Nijman HW, de Bruyn M, Yigit R.Clin Cancer Res. 2025 Mar 17;31(6):1016-1026. doi: 10.1158/1078-0432.CCR-24-1662.PMID: 39849926

Perceptions of sources of transmission among hospital employees infected with severe acute respiratory coronavirus 2 (SARS-CoV-2) in an urban tertiary care hospital: a qualitative study to inform future pandemic management.

Luo Z, Kent DE, Shah P, Poplausky D, MacRae MC, Boomsma C, Jasper JM, Wurcel AG, Byhoff E, Tang AM, Doron S, Subbaraman R.Antimicrob Steward Healthc Epidemiol. 2025 Mar 14;5(1):e78. doi: 10.1017/ash.2025.39. eCollection 2025.PMID: 40109910

Genetic, Phylogenetic, and Serological Analysis of a Getah Virus Strain Isolated from Culex tritaeniorhynchus Mosquitoes in Nagasaki, Japan in 2022.

Matsumura R, Bannai H, Nemoto M, Higa Y, Kai I, Sasaki T, Futami K, Yoshikawa A, Fujita R, Hino M, Nagata K, Kuwata R, Kaku Y, Kobayashi D, Minakawa N, Kasai S, Itoyama K, Maeda K, Isawa H.Jpn J Infect Dis. 2025 Mar 21;78(2):71-78. doi: 10.7883/yoken.JJID.2024.250. Epub 2024 Nov 29.PMID: 39617482

BECC-engineered live-attenuated Shigella vaccine candidates display reduced endotoxicity with robust immunogenicity in mice.

Sherman ME, Michalski J, Das S, Yang H, Chandrasekaran L, O'Meara TR, Dowling DJ, Levy O, Barnoy S, Venkatesan M, Ernst RK.Vaccine. 2025 Mar 19;50:126779. doi: 10.1016/j.vaccine.2025.126779. Epub 2025 Feb 12.PMID: 39946867

Prevalence and determinants of child immunization coverage in Ethiopia: Evidence from the 2019 mini-demographic and health survey.

Gebrehiwot GT, Tilahun M, Gebrehiwot H, Kahsay H, Gebregziabher G, Haddis S, Tesfay M, Alemseged G, Alemseged G, Kalayu M, Yisfa G, Alemu M, Bidre HB, Teklue T.Hum Vaccin Immunother. 2025 Dec;21(1):2478707. doi: 10.1080/21645515.2025.2478707. Epub 2025 Mar 19.PMID: 40103405

Eighteen Year Longitudinal Study of Uncomplicated and Complex Acute Otitis Media during the Pneumococcal Conjugate Vaccine Era, 2006-2023.

Fuji N, Salamone FN, Kaur R, Bajorski P, Gonzalez E, Wang L, Ali M, Miller A, Grant LR, Arguedas A, Pichichero M.J Infect Dis. 2025 Mar 20:jiaf154. doi: 10.1093/infdis/jiaf154. Online ahead of print.PMID: 40112171

Reducing off-target expression of mRNA therapeutics and vaccines in the liver with microRNA binding sites.

Parrett BJ, Yamaoka S, Barry MA.Mol Ther Methods Clin Dev. 2024 Dec 19;33(1):101402. doi: 10.1016/j.omtm.2024.101402. eCollection 2025 Mar 13.PMID: 39867482

The Affordable Care Act and change in human papillomavirus (HPV) vaccine uptake in the United States.

Gao MZ, Awonusi OO, Ramkumar SP, Myint JA, Barnes JM, Semprini J, Adjei Boakye E, Rohde RL, Zimet GD, Osazuwa-Peters N.Vaccine. 2025 Mar 19;50:126842. doi: 10.1016/j.vaccine.2025.126842. Epub 2025 Feb 5.PMID: 39914253

Structures of respiratory syncytial virus G bound to broadly reactive antibodies provide insights into vaccine design.

Juarez MG, O'Rourke SM, Dzimianski JV, Gagnon D, Penunuri G, Serrão VHB, Corbett-Detig RB, Kauvar LM, DuBois RM.Sci Rep. 2025 Mar 13;15(1):8666. doi: 10.1038/s41598-025-92886-w.PMID: 40082629

A highly stable lyophilized mRNA vaccine for Herpes Zoster provides potent cellular and humoral responses.

Munoz-Moreno R, Allaj V, Gadee E, Button JM, Diaz F, Maddur MS, Chen W, Hu CH, Martinez L, Giannakou A, Campbell AL, Miteva Y, Guo P, Huang B, Shi S, Lotvin J, Tompkins K, Allen PS, Solórzano A.NPJ Vaccines. 2025 Mar 14;10(1):49. doi: 10.1038/s41541-025-01093-1.PMID: 40087280

Enhanced passive safety surveillance of standard-dose and high-dose influenza vaccines in Finland and Germany 2023-24 season.

Amaral de Avila Machado M, Gallo S, Goldstein A, Vachhani P, Byrareddy RM, Kantele A, Välimaa H, Schelling J.Hum Vaccin Immunother. 2025 Dec;21(1):2475616. doi: 10.1080/21645515.2025.2475616. Epub 2025 Mar 18.PMID: 40098448

Forced intracellular degradation of xenoantigens as a modality for cell-based cancer immunotherapy.

Bikorimana JP, Farah R, Abusarah J, Mandl GA, Erregragui MA, Gonçalves MP, Talbot S, Matar P, Lahrichi M, El-Hachem N, Rafei M.iScience. 2025 Feb 4;28(3):111957. doi: 10.1016/j.isci.2025.111957. eCollection 2025 Mar 21.PMID: 40060894

Predicting immune protection against outcomes of infectious disease from population-level effectiveness data with application to COVID-19.

Hao T, Ryan GE, Lydeamore MJ, Cromer D, Wood JG, McVernon J, McCaw JM, Shearer FM, Golding N.Vaccine. 2025 Mar 20;55:126987. doi: 10.1016/j.vaccine.2025.126987. Online ahead of print.PMID: 40117726

Quantitative detection of β-glucans in Cordyceps species using a validated Congo red assay.

Xia H, Zhang R, Yin Y, Souvanhnachit S, Lu Y, Liu Z, Zhang W, Yu H.Sci Rep. 2025 Mar 22;15(1):9938. doi: 10.1038/s41598-025-94217-5.PMID: 40121299

A phase I study of the safety, reactogenicity and immunogenicity of two quadrivalent seasonal influenza vaccines (Fluzone® or Flublok®) with or without one of two adjuvants (AF03 or Advax-CpG55.2) in healthy adults 18-45 years of age.

Hegmann TE, Walter EB, Smith MJ, Campbell J, El Sahly HM, Whitaker JA, Creech CB, Ustyugova IV, Goncalvez AP, Pandey A, Alefantis T, Sridhar S, Honda-Okubo Y, Petrovsky N, Frey SE, Abate G, Paulsen G, Anderson EJ, Rostad CA, Rouphael N, Makhene M, Roberts PC, Tuyishimire B, Bryant C, Winokur P.Vaccine. 2025 Mar 18;54:126991. doi: 10.1016/j.vaccine.2025.126991. Online ahead of print.PMID: 40107003

Evidence for infectious merozoites of Plasmodium falciparum from natural isolates of cultured hepatoma cells infected with sporozoites.

Adeyemi O, Osuntoki A, Magbagbeola O, Abdel Hamid MM, Elaagip A, Mueller AK, Ibrahim M.PLoS One. 2025 Mar 19;20(3):e0319901. doi: 10.1371/journal.pone.0319901. eCollection 2025.PMID: 40106488

Industry update: the latest developments in the field of therapeutic delivery, January 2025.

Harris E.Ther Deliv. 2025 Mar 17:1-8. doi: 10.1080/20415990.2025.2480535. Online ahead of print.PMID: 40098395

O-antigen polysaccharides in *Klebsiella pneumoniae*: structures and molecular basis for antigenic diversity.

Whitfield C, Kelly SD, Stanton TD, Wyres KL, Clarke BR, Forrester TJB, Kowalczyk A.Microbiol Mol Biol Rev. 2025 Mar 21:e0009023. doi: 10.1128/mmbr.00090-23. Online ahead of print.PMID: 40116577

Safety, tolerability and immunogenicity of a condensed, multi-dose prime regimen of PfSPZ Vaccine for the prevention of Plasmodium falciparum malaria infection.

Berry AA, Richie TL, Church LWP, Laurens MB, Boyce C, Kc N, Joshi S, Koudjra AR, Butler L, Chen MC, Abebe Y, Murshedkar T, James ER, Billingsley PF, Sim BKL, Hoffman SL, Lyke KE.Malar J. 2025 Mar 17;24(1):88. doi: 10.1186/s12936-025-05299-5.PMID: 40098097

The impact of non-pharmacological interventions on nasopharyngeal *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Moraxella catarrhalis*, *Haemophilus influenzae* carriage and the change of pneumococcal vaccination in healthy children under 5 years old in Beijing, China.

Du Q, Liu Z, Shi W, Liu X, Meng Q, Zheng D, Yao K.Expert Rev Vaccines. 2025 Dec;24(1):206-211. doi: 10.1080/14760584.2025.2476521. Epub 2025 Mar 13.PMID: 40047449

Safety and effectiveness of MVA-BN vaccination against mpox in at-risk individuals in Germany (SEMVAc and TEMVAc): a combined prospective and retrospective cohort study.

Hillus D, Le NH, Tober-Lau P, Fietz AK, Hoffmann C, Stegherr R, Huang L, Baumgarten A, Voit F, Bickel M, Goldstein G, Wyen C, Stocker H, Wünsche T, Lee M, Schulbin H, Vallée M, Bohr U, Potthoff A, Cordes C, Isner C, Knox B, Carmona A, Stobäus N, Balicer R; SEMVAc Study Group; Kurth F, Sander LE.Lancet Infect Dis. 2025 Mar 18:S1473-3099(25)00018-0. doi: 10.1016/S1473-3099(25)00018-0. Online ahead of print.PMID: 40118087

[Durability of antibody titers and associated factors after the booster dose of COVID-19 mRNA vaccination in Japanese SARS-CoV-2 infection-naive residents in geriatric intermediate care facilities.]

Kasamatsu A, Ohfuji S, Suita A, Kondo K, Nakata H, Kita T, Deguchi A, Fujimoto M, Iba K, Sakamoto H, Iwasaka K, Sakamoto N, Sakamoto H, Yodoi Y, Kido Y, Nakagama Y, Konishi A, Mukai E, Matsumoto K, Matsuura T, Kase T, Kakeya H, Fukushima W, Hirota Y.Geriatr Gerontol Int. 2025 Mar 15. doi: 10.1111/ggi.70028. Online ahead of print.PMID: 40087896

[Changes in the dynamic characteristics of G-protein can alter the immune-protection efficacy of rabies virus vaccine.]

Chen C-x, Wang X, Su W, Tian Y, Gao Y, Liu D-l, Xiang H, Liu B-c, Shi J-l, Zhang Y, Shen D, He W-z, Yang L, Hong C, Wu F, Shi L-t, Cun Y-n, Zhou J.J Virol. 2025 Mar 18;99(3):e0195424. doi: 10.1128/jvi.01954-24. Epub 2025 Feb 21.PMID: 39982033

[Characterization of human papillomavirus genotypes infections in patients with cervical lesions and cervical cancer in Urumqi, Xinjiang from 2016 to 2023.]

Wang Y, Maisaidi R, Zhang S, Reheman Y, Han L.Virol J. 2025 Mar 13;22(1):72. doi: 10.1186/s12985-025-02674-1.PMID: 40082961

[Vitiligo development following COVID-19 vaccination: A retrospective analysis of 128 cases using the Vaccine Adverse Events Reporting System.]

Pathak GN, Sanabria B, Pathak AN, Lohani DM, Razi S, Rao B.J Am Acad Dermatol. 2025 Mar 17:S0190-9622(25)00442-6. doi: 10.1016/j.jaad.2025.03.021. Online ahead of print.PMID: 40107504

[Multiple factors shape technology transfer for the development and manufacture of vaccines in Latin America and the Caribbean.]

Campos N, Cortés MLÁ, Pippo TA, Rius J, Fitzgerald J, Couve A.Biologicals. 2025 Mar 23;90:101826. doi: 10.1016/j.biologicals.2025.101826. Online ahead of print.PMID: 40127509

[Proceedings of the 2023 Annual Scientific Meeting of the French Society of Toxicologic Pathology (SFPT) on Preclinical Development and Therapeutic Applications of mRNA-Based Technologies.]

Fant P, Laurent S, Desert P, Combadière B, Palazzi X, Choudhary S, Gervais F, Broudic K, Rossi R, Gauthier BE.Toxicol Pathol. 2025 Mar 20:1926233251326089. doi: 10.1177/01926233251326089. Online ahead of print.PMID: 40110665

[Amino acid substitutions in NSP6 and NSP13 of SARS-CoV-2 contribute to superior virus growth at low temperatures.]

Furusawa Y, Kiso M, Uraki R, Sakai-Tagawa Y, Nagai H, Koga M, Kashima Y, Hojo M, Iwamoto N, Iwatsuki-Horimoto K, Ohmagari N, Suzuki Y, Yotsuyanagi H, Halfmann PJ, Kamitani W, Yamayoshi S, Kawaoka Y.J Virol. 2025 Mar 18;99(3):e0221724. doi: 10.1128/jvi.02217-24. Epub 2025 Feb 12.PMID: 39936915

[A CRISPRi library screen in group B *Streptococcus* identifies surface immunogenic protein (Sip) as a mediator of multiple host interactions.]

Firestone K, Gopalakrishna KP, Rogers LM, Peters A, Gaddy JA, Nichols CM, Hall MH, Varela HN, Carlin SM, Hillebrand GH, Giacobe EJ, Aronoff DM, Hooven TA.Infect Immun. 2025 Mar 21:e0057324. doi: 10.1128/iai.00573-24. Online ahead of print.PMID: 40116487

Age-related peculiarities of antibody-mediated humoral immune response following SARS-CoV-2 infection.

Movsisyan M, Harutyunyan H, Kh M, Kasparova I, Hakobyan A, Yenkoyan K.Exp Gerontol. 2025 Mar 20:112735. doi: 10.1016/j.exger.2025.112735. Online ahead of print.PMID: 40120835

Pairing tumor cell vesicle antigens with cationic nano-adjuvants by electrostatic adherence for personalized cancer **vaccine**.

Wang B, Gao Y, Song Z, Zhang Y, Fan P, Lu X, Zhang H, Zhang Z.Int J Pharm. 2025 Mar 15;672:125252. doi: 10.1016/j.ijpharm.2025.125252. Epub 2025 Jan 30.PMID: 39892678

Distinct mutations emerge in the genome of serotype O foot-and-mouth disease virus during persistence in cattle.

Litz B, Forth LF, Pfaff F, Beer M, Eschbaumer M.J Virol. 2025 Mar 18;99(3):e0142224. doi: 10.1128/jvi.01422-24. Epub 2025 Feb 7.PMID: 39918330

Estimated Efficacy of TAK-003 Against Asymptomatic Dengue Infection in Children/Adolescents Participating in the DEN-301 Trial in Asia Pacific and Latin America.

El Hindi T, Alera MT, Bravo L, Moreira ED Jr, Dietze R, Oliveira AL, Watanaveeradej V, Zhao Y, Sonderegger I, Tricou V, Folschweiller N, Biswal S.J Infect Dis. 2025 Mar 18:jiaf145. doi: 10.1093/infdis/jiaf145. Online ahead of print.PMID: 40100744

Human papillomavirus (HPV) **vaccine** clinical trials: A cross-sectional analysis of clinical trials registries.

Mavundza EJ, Mmotsa TM, Ndwandwe D.Hum Vaccin Immunother. 2025 Dec;21(1):2478702. doi: 10.1080/21645515.2025.2478702. Epub 2025 Mar 18.PMID: 40101289

SodC is responsible for oxidative stress resistance and pathogenicity of Corynebacterium pseudotuberculosis, and the sodC-deleted C. pseudotuberculosis **vaccine** provides immunity in mice.

Lv H, Li X, Peng Q, Niu X, Meng C, Niu L, Zhang S, Li P, Jiao H, Wang Z, Zhou Z.Vet Microbiol. 2025 Mar 19;304:110484. doi: 10.1016/j.vetmic.2025.110484. Online ahead of print.PMID: 40120522

Barriers and facilitators to HPV vaccination in rural South Carolina pharmacies: a qualitative investigation.

Davies A, Tucker SB, Goodman M, Brandt HM, Hastings TJ.Implement Sci Commun. 2025 Mar 20;6(1):26. doi: 10.1186/s43058-025-00711-2.PMID: 40114254

Correction to: Immunogenicity and Safety of the Higher-Valent Pneumococcal Conjugate **Vaccine** vs the 13-Valent Pneumococcal Conjugate **Vaccine** in Older Adults: A Systematic Review and Meta-analysis of Randomized Controlled Trials.

[No authors listed]Open Forum Infect Dis. 2025 Mar 20;12(3):ofaf169. doi: 10.1093/ofid/ofaf169. eCollection 2025 Mar.PMID: 40114974

[Evaluation of recombinant extracellular enveloped virion protein candidates for the detection of serological responses to lumpy skin disease virus in cattle.]

Angsujinda K, Kitchanakan P, Daewang N, Chintapitaksakul L, Wanganurakkul S, Chaiyo S, Khongchareonporn N, Mahony TJ, Assavalapsakul W.Vet Q. 2025 Dec;45(1):1-13. doi: 10.1080/01652176.2025.2475989. Epub 2025 Mar 19.PMID: 40103407

[Immunomodulatory Effect of the Bacillus Calmette-Guerin (BCG) Vaccine on the In Vitro Interferon Response Induced by Respiratory Syncytial Virus (RSV) and Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Antigens.]

Jurczak M, Kaczmarek J, Kowalewska-Pietrzak M, Druszczynska M.Arch Immunol Ther Exp (Warsz). 2025 Mar 18;73(1). doi: 10.2478/aite-2025-0007. eCollection 2025 Jan 1.PMID: 40101137

[Meeting report: CEPI workshop on Rift Valley fever epidemiology and modeling to inform human vaccine development, Nairobi, 4-5 June 2024.]

Gharpure R, Vegvari C, Abdissa A, Alimi Y, Anyamba A, Auerbach J, Bett B, Bird BH, Bob NS, Breugelmans JG, Clark J, Cleaveland S, Cramer J, Dawa J, Fay PC, Formenty P, Gerdts V, Gerken KN, Gitonga J, Groschup M, Heighway J, Johnson SAM, Juma J, Kading RC, Kamau M, Kerama S, Lubisi BA, Lutwama J, Luyimbazi D, Marami D, Moore SM, Muturi M, Mwangoka G, Ndiu A, Njenga MK, Njouom R, Nyakarahuka L, Nzietchueng S, Oloo P, Otiende M, Oyola S, Paganini LS, Pandit PS, Punt C, Samy AM, Situma S, Sneddon H, Ten Bosch QA, Tezcan-Ulger S, Thompson PN, Tildesley M, Tinto B, Vesga JF, Wichgers Schreur PP, Hart P.Vaccine. 2025 Mar 17;54:126860. doi: 10.1016/j.vaccine.2025.126860. Online ahead of print.PMID: 40101455

[Norway rat hepacivirus resembles hepatitis C virus in terms of intra-host evolution and escape from neutralizing antibodies.]

Thorselius CE, Wolfisberg R, Fahnøe U, Scheel TKH, Holmbeck K, Bukh J.J Hepatol. 2025 Mar 15:S0168-8278(25)00163-1. doi: 10.1016/j.jhep.2025.02.044. Online ahead of print.PMID: 40096950

[An Exceptional Case of a Supra-tentorial Streptococcus Salivarius Brain Abscess-A Case Report.]

Bourial A, Lahlou W, Rghioui M, Louraoui SM, El Azhari A, Guessous F.Clin Med Insights Case Rep. 2025 Mar 18;18:11795476251325803. doi: 10.1177/11795476251325803. eCollection 2025.PMID: 40103915

[Construction and evaluation of recombinant rabies virus encoding three copies codon-optimized G genes as inactivated rabies vaccine in dogs and cats.]

Wu Y, Li H, Wang Z, Pei T, Shang Q, Zhao J, Zhou M, Fu ZF, Zhang C, Zhao L.Vet Microbiol. 2025 Mar 16;304:110481. doi: 10.1016/j.vetmic.2025.110481. Online ahead of print.PMID: 40112690

[Phase 1 Study of Adjuvant Allogeneic Granulocyte-Macrophage Colony-Stimulating Factor-Transduced Pancreatic Tumor Cell Vaccine, Low-Dose Cyclophosphamide, and Stereotactic Body Radiation Therapy Followed by FOLFIRINOX in High-Risk Resected Pancreatic Ductal Adenocarcinoma.]

Hill CS, Parkinson R, Jaffee EM, Sugar E, Zheng L, Onners B, Weiss MJ, Wolfgang CL, Cameron JL, Pawlik TM, Rosati L, Le DT, Hacker-Prietz A, Lutz ER, Schulick R, Narang AK, Laheru DA, Herman JM.Int J Radiat

Oncol Biol Phys. 2025 Mar 15;121(4):930-941. doi: 10.1016/j.ijrobp.2024.10.039. Epub 2024 Nov 14.PMID: 39547453

[Oral delivery of Mycobacterium bovis bacillus Calmette-Guérin (BCG) in alginate spheres to captive white-tailed deer.]

Boggiatto PM, Sterle H, Fernandes L, Hamby H, VerCauteren K, Feuka A, Campa H 3rd, Kanipe C, Olsen SC, Palmer MV.BMC Vet Res. 2025 Mar 22;21(1):193. doi: 10.1186/s12917-025-04643-w.PMID: 40119424

[Expanding Vaccination Access in Underserved Communities Across Maryland Through a Collaborative Approach.]

Brandt NJ, Hindman FM, Layson-Wolf C, Brandt S, Zarowitz BJ.J Am Pharm Assoc (2003). 2025 Mar 21:102389. doi: 10.1016/j.japh.2025.102389. Online ahead of print.PMID: 40122343

[Peritumoral Infiltration of Regulatory T Cells Reduces the Therapeutic Efficacy of Bacillus Calmette-Guérin Therapy for Bladder Carcinoma In Situ.]

Fukiage Y, Muramoto A, Terada N, Kobayashi M.Int J Urol. 2025 Mar 14. doi: 10.1111/iju.70044. Online ahead of print.PMID: 40084633

[Association of Messenger RNA Coronavirus Disease 2019 (COVID-19) Vaccination and Reductions in Post COVID Conditions Following Severe Acute Respiratory Syndrome Coronavirus 2 Infection in a US Prospective Cohort of Essential Workers.]

Mak J, Khan S, Britton A, Rose S, Gwynn L, Ellingson KD, Meece J, Feldstein LR, Tyner H, Edwards LJ, Thiese MS, Naleway A, Gaglani M, Solle N, Burgess JL, Lamberte JM, Shea M, Hunt-Smith T, Caban-Martinez A, Porter C, Wiegand R, Rai R, Hegmann KT, Hollister J, Fowlkes A, Wesley M, Philips AL, Rivers P, Bloodworth R, Newes-Adeyi G, Olsho LEW, Yoon SK, Saydah S, Lutrick K.J Infect Dis. 2025 Mar 17;231(3):665-676. doi: 10.1093/infdis/jiae556.PMID: 39531735

[Optimal control analysis on the spread of COVID-19: Impact of contact transmission and environmental contamination.]

Singh Negi S, Ravina, Sharma N, Priyadarshi A.Gene. 2025 Mar 15;941:149033. doi: 10.1016/j.gene.2024.149033. Epub 2024 Oct 22.PMID: 39447707

[The Impact of the COVID-19 Omicron Variant on Immunocompromised Patients: ICU Admissions and Increased Mortality.]

Pander J, Termorshuizen F, de Lange DW, Beekman-Hendriks W, Lanfermeijer J, Bakhshi-Raiez F, Dongelmans DA.Infect Dis Ther. 2025 Mar 14. doi: 10.1007/s40121-025-01122-5. Online ahead of print.PMID: 40085166

[Pertussis vaccination campaign among health care workers and validity of recall of previous adverse events following immunization.]

Fritschi N, Heininger U.Vaccine. 2025 Mar 19;50:126850. doi: 10.1016/j.vaccine.2025.126850. Epub 2025 Feb 10.PMID: 39923543

[Seroprevalence of antibodies to hepatitis A, B and C viruses across all age groups in Chonburi Province, Thailand, 2022-2023.]

Wanlapakorn N, Chansaenroj J, Vichaiwattana P, Klinfueng S, Poovorawan Y.Hum Vaccin Immunother. 2025 Dec;21(1):2480403. doi: 10.1080/21645515.2025.2480403. Epub 2025 Mar 18.PMID: 40101297

[Colic ameboma mimicking colic cancer: A case report.]

Khlif T, Nasri S, Safta AB, Hamza F, Ajouli W, Nouira R.Int J Surg Case Rep. 2025 Mar 13;129:111149. doi: 10.1016/j.ijscr.2025.111149. Online ahead of print.PMID: 40120325

[Factors shaping Covid-19 **vaccine** acceptability among young people in South Africa and Nigeria: An exploratory qualitative study.]

Casale M, Somefun O, Ronnie GH, Sumankuuro J, Akintola O, Sherr L, Cluver L.PLOS Glob Public Health. 2025 Mar 18;5(3):e0003795. doi: 10.1371/journal.pgph.0003795. eCollection 2025.PMID: 40100797

[The High Expression of PD-1 Defines A Subpopulation of Tfh Cells Responding to COVID-19 **Vaccine** in Humans.]

Guo J, Fu Z, Zhang Y, Xu M, He J, Zhang H, Zhang Q, Song J, Lin K, Fan M, He Z, Yuan G, Jiang N, Huang H, Qiu C, Ai J, Zhang W.Genomics Proteomics Bioinformatics. 2025 Mar 13:qzaf019. doi: 10.1093/gpbjnl/qzaf019. Online ahead of print.PMID: 40080696

["It's a risk-benefit analysis": Qualitative perspectives on barriers and enablers to post-treatment vaccination from adults affected by a haematological malignancy in Australia.]

Chung H, Krishnasamy M, Joyce T, Dryden T, Whitechurch A, Baden P, Harrison S, Teh BW.Vaccine. 2025 Mar 19;50:126826. doi: 10.1016/j.vaccine.2025.126826. Epub 2025 Feb 1.PMID: 39893769

[Comparison of two methods for the estimation of COVID-19 **vaccine** effectiveness of the autumnal booster within the VEBIS-EHR network in 2022/23.]

Monge S, Humphreys J, Nicolay N, Braeye T, Van Evercooren I, Hansen CH, Emborg HD, Fabiani M, Sacco C, Castilla J, Martínez-Baz I, de Gier B, Hahné S, Meijerink H, Kristoffersen AB, Machado A, Soares P, Fontán-Vela M, Nardone A, Kissling E, Nunes B; VEBIS-Lot 4 working group.Epidemiol Infect. 2025 Mar 17:1-25. doi: 10.1017/S0950268825000317. Online ahead of print.PMID: 40090768

[Mpox vaccination coverage among Australian gay and bisexual men and non-binary people: Results of behavioural surveillance in early 2024.]

MacGibbon J, Storer D, Bavinton BR, Cornelisse VJ, Broady TR, Chan C, Smith AKJ, Rule J, Mao L, Holt M.Vaccine. 2025 Mar 17;55:127014. doi: 10.1016/j.vaccine.2025.127014. Online ahead of print.PMID: 40101325

[Leishmania major Dihydrolipoyl dehydrogenase (DLD) is a key metabolic enzyme that drives parasite proliferation, pathology and host immune response.]

Onwah SS, Mou Z, Gupta G, Obi P, Ikeogu N, Jia P, Zhang WW, Ghavami S, Saleem A, Uzonna J.PLoS Pathog. 2025 Mar 17;21(3):e1012978. doi: 10.1371/journal.ppat.1012978. Online ahead of print.PMID: 40096189

Socio-demographic differences in citizen' preferences for distributing a scarce, lifesaving resource: A case study using COVID-19 vaccine distribution in Belgium.

Raskin N, Hiligsmann M, Luyten J, Tubeuf S, Grigoriev A, Kessels R.Vaccine. 2025 Mar 19;55:126997. doi: 10.1016/j.vaccine.2025.126997. Online ahead of print.PMID: 40112555

Term immune memory responses to human papillomavirus (HPV) vaccination following 2 versus 3 doses of HPV vaccine.

Carter JJ, Smith RA, Scherer EM, Skibinski DAG, Sankaranarayanan S, Luxembourg A, Kollmann T, Marty KD, Sadarangani M, Dobson S, Galloway DA.Vaccine. 2025 Mar 19;50:126817. doi: 10.1016/j.vaccine.2025.126817. Epub 2025 Feb 5.PMID: 39914257

Sustained Vaccine Exposure Elicits More Rapid, Consistent, and Broad Humoral Immune Responses to Multivalent Influenza Vaccines.

Saouaf OM, Ou BS, Song YE, Carter JJ, Yan J, Jons CK, Barnes CO, Appel EA.Adv Sci (Weinh). 2025 Mar 17:e2404498. doi: 10.1002/advs.202404498. Online ahead of print.PMID: 40091614

Regional difference on rotavirus vaccine coverage in children with diarrhea in Mozambique, before and during COVID-19 pandemic: a cross-sectional analysis.

Cassocera M, Bauhofer AFL, Chissaque A, Munlela B, Guimarães E, Isaías T, Conjo C, Maculuve B, Chicumbe S, de Deus N.BMC Infect Dis. 2025 Mar 19;25(1):382. doi: 10.1186/s12879-025-10750-8.PMID: 40108531

Association of serum anti-gbs2106 protein immunoglobulin G (IgG) in newborns and risk reduction of invasive group B streptococcus disease during early infancy.

Gent V, Dhar N, Izu A, Jones S, Dangor Z, Briner C, Hosken N, Kwatra G, Madhi SA.Vaccine. 2025 Mar 14;54:127016. doi: 10.1016/j.vaccine.2025.127016. Online ahead of print.PMID: 40088514

Microarray patches likely to reduce the operational costs of immunization: A Monte Carlo simulation study.

Hagedorn B, Frey K, Scarna T, El Sheikh F.Vaccine. 2025 Mar 19;50:126840. doi: 10.1016/j.vaccine.2025.126840. Epub 2025 Feb 10.PMID: 39923545

Characteristics of phase 4 clinical trials on Dental Caries registered at Clinicaltrials.gov.

Kul KS, Ayar MK.BMC Oral Health. 2025 Mar 20;25(1):411. doi: 10.1186/s12903-025-05662-7.PMID: 40114109

Quantification of objective concentrations of DNA impurities in mRNA vaccines.

Kaiser S, Kaiser S, Reis J, Marschalek R.Vaccine. 2025 Mar 21;55:127022. doi: 10.1016/j.vaccine.2025.127022. Online ahead of print.PMID: 40120438

[BET inhibitor in combination with BCG **vaccine** enhances antitumor efficacy and orchestrates T cell reprogramming for melanoma.]

Wang W, Li X, Hu R, Dong L, Pei S, Jin L, Gao Q, Chen X, Yin M.Cell Rep Med. 2025 Mar 18;6(3):101995. doi: 10.1016/j.xcrm.2025.101995.PMID: 40107246

[Characterization of pneumococcal conjugates in **vaccine** process development by multi-detection hydrodynamic chromatography.]

Jia X, Deng JZ, Winters MA, Paulines MJ, Tong W, Cannon E, Biba M, Zhuang P.J Pharm Biomed Anal. 2025 Mar 20;261:116826. doi: 10.1016/j.jpba.2025.116826. Online ahead of print.PMID: 40121703

[Oral and parenteral vaccination of broiler chickens with Recombinant NetB antigen from Clostridium perfringens confers significant protection against necrotic enteritis.]

Shamshirgaran MA, Golchin M.BMC Vet Res. 2025 Mar 14;21(1):167. doi: 10.1186/s12917-025-04624-z.PMID: 40087742

[Investigation of the impact of lipid nanoparticle compositions on the delivery and T cell response of circRNA **vaccine**.]

Alshehry Y, Liu X, Zhang Y, Zhu G.J Control Release. 2025 Mar 17;381:113617. doi: 10.1016/j.jconrel.2025.113617. Online ahead of print.PMID: 40107513

[Health care institutions and their physicians are the greatest promoters of COVID-19 **vaccine** acceptance among health care workers.]

Ricci L, Fery C, Tubach F, Agrinier N, Gagneux-Brunon A.Vaccine. 2025 Mar 14;54:127005. doi: 10.1016/j.vaccine.2025.127005. Online ahead of print.PMID: 40088510

[Adverse events among early caregivers' COVID-19 vaccination correlated inversely with intention to vaccinate their children.]

Goldman RD, Hart RJ, Bone JN, Seiler M, Olson PG, Keitel K, Manzano S, Gualco G, Krupik D, Schroter S, Weigert RM, Chung S, Thompson GC, Muhammad N, Shah P, Gaucher NO, Lunoe MM, Evers M, Pharisa Rochat C, Nelson CE, Gal M, Baumer-Mouradian SH; International COVID-19 Parental Attitude Study (COVIPAS) Group.Vaccine. 2025 Mar 22;55:127001. doi: 10.1016/j.vaccine.2025.127001. Online ahead of print.PMID: 40121734

[Effect of pre-vaccination blood and T-cell phenotypes on antibody responses to COVID-19 mRNA **vaccine**.]

Hidaka Y, Jo N, Kikuchi O, Fukahori M, Sawada T, Shimazu Y, Yamamoto M, Kometani K, Nagao M, Nakajima TE, Muto M, Morita S, Hamazaki Y.Int Immunol. 2025 Mar 20:dxaf013. doi: 10.1093/intimm/dxaf013. Online ahead of print.PMID: 40110889

[A cost-effectiveness analysis of adult human papillomavirus vaccination strategies in Italy.]

Cherif A, Palmer C, Senese F, Bechini A, Salvati C, Bonanni P, Boccalini S.Hum Vaccin Immunother. 2025 Dec;21(1):2474891. doi: 10.1080/21645515.2025.2474891. Epub 2025 Mar 17.PMID: 40094352

[PCV13-Serotype Breakthrough Pneumococcal Disease in Infants Receiving High-Valency Conjugate Vaccines: Population-Level Modeling in France.]

Bakker KM, Oidtman RJ, Banniettis N, Feemster K, Velentgas P, Malik TM, Meleleo G, Weaver J.Infect Dis Ther. 2025 Mar 19. doi: 10.1007/s40121-025-01123-4. Online ahead of print.PMID: 40106179

[Mapping Binding Domains of Viral and Allergenic Proteins with Dual-Cleavable Cross-Linking Technology.]

Talukder A, Chowdhury SM.J Am Soc Mass Spectrom. 2025 Mar 23. doi: 10.1021/jasms.4c00398. Online ahead of print.PMID: 40123104

[Advances in dendritic cell-based therapeutic tumor vaccines.]

Qin S, Na J, Yang Q, Tang J, Deng Y, Zhong L.Mol Immunol. 2025 Mar 21;181:113-128. doi: 10.1016/j.molimm.2025.03.005. Online ahead of print.PMID: 40120558

Correction: A promising mRNA **vaccine** derived from the JN.1 spike protein confers protective immunity against multiple emerged Omicron variants.

Ao D, Peng D, He C, Ye C, Hong W, Huang X, Lu Y, Shi J, Zhang Y, Liu J, Wei X, Wei Y.Mol Biomed. 2025 Mar 17;6(1):15. doi: 10.1186/s43556-025-00260-z.PMID: 40095271

[Effect of active immunization with recombinant GnRH6-kisspeptin fusion protein on reproductive function in male rats.]

Li M, Liu X, Gong X, Di M, Guo S, Pan Z, Zhang W, Yan X, Liu X, Fang F.Zygote. 2025 Mar 13:1-7. doi: 10.1017/S0967199425000036. Online ahead of print.PMID: 40078105

Correction to: Natural Boosting and the Immunogenicity of the XBB.1.5 Monovalent **Vaccine** in the Coronavirus Disease 2019 Endemic Era: A Longitudinal Observational Study.

[No authors listed]J Infect Dis. 2025 Mar 17;231(3):e596. doi: 10.1093/infdis/jiaf073.PMID: 39960372

[Demographic and Clinical Factors Associated With SARS-CoV-2 Anti-Nucleocapsid Antibody Response Among Previously Infected US Adults: The C4R Study.]

Demmer RT, Wu C, Kim JS, Sun Y, Balte P, Cushman M, Boyle R, Tracy RP, Styer LM, Bell TD, Anderson MR, Allen NB, Schreiner PJ, Bowler R, Schwartz DA, Lee JS, Xanthakis V, Rock JM, Bievenue R, Pirzada A, Doyle M, Regan EA, Make BJ, Kanaya AM, Kandula NR, Wenzel SE, Coresh J, Isasi CR, Raffield LM, Elkind MSV, Howard VJ, Ortega VE, Woodruff P, Cole SA, Henderson JM, Mantis NJ, Oelsner EC.Open Forum Infect Dis. 2025 Mar 20;12(3):ofaf123. doi: 10.1093/ofid/ofaf123. eCollection 2025 Mar.PMID: 40124199

[Meningococcal vaccination disparities in the United States (2010-2021): Findings from the National Immunization Survey-Teen and a commercial insurance database.]

Herrera-Restrepo O, Kwiatkowska M, Huse S, Ndegwa N, Kocaata Z, Ganz ML.Hum Vaccin Immunother. 2025 Dec;21(1):2479338. doi: 10.1080/21645515.2025.2479338. Epub 2025 Mar 19.PMID: 40105019

[Promoting vaccination prevention in Germany across federal states with a focus on European goals: the national immunization steering group (NaLI)].

Milbradt J, Ludwig MS.Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz. 2025 Mar 20. doi: 10.1007/s00103-025-04026-4. Online ahead of print.PMID: 40111475

Soluble influenza H3 trimer proteins enhance the breadth and potency of antibody response.

Liu CC, Ru YX, Li HR, Liu DJ, Liu JY, Zhao SL, Wu X, Peng YS, Li YW, Deng L.Int J Biol Macromol. 2025 Mar 19;307(Pt 4):142240. doi: 10.1016/j.ijbiomac.2025.142240. Online ahead of print.PMID: 40118424

Bivalent Boosters and Risk of Postacute Sequelae Following **Vaccine**-Breakthrough SARS-CoV-2 Omicron Infection: A Cohort Study.

Wee LE, Lim JT, Goel M, Malek MIA, Chiew CJ, Ong B, Lye DCB, Tan KB.Clin Infect Dis. 2025 Mar 17;80(3):520-528. doi: 10.1093/cid/ciae598.PMID: 39657038

Erratum: Lipid nanoparticle encapsulation of a Delta spike-CD40L DNA **vaccine** improves effectiveness against Omicron challenge in Syrian hamsters.

Tamming L, Duque D, Tran A, Lansdell C, Frahm G, Wu J, Fekete EEF, Creskey M, Thulasi Raman SN, Laryea E, Zhang W, Pfeifle A, Gravel C, Stalker A, Hashem AM, Chen W, Stuible M, Durocher Y, Safronetz D, Cao J, Wang L, Sauve S, Rosu-Myles M, Zhang X, Johnston MJW, Li X.Mol Ther Methods Clin Dev. 2024 Dec 11;33(1):101388. doi: 10.1016/j.omtm.2024.101388. eCollection 2025 Mar 13.PMID: 39759470

Modulation of lipid nanoparticle-formulated plasmid DNA drives innate immune activation promoting adaptive immunity.

Tursi NJ, Tiwari S, Bedanova N, Kannan T, Parzych E, Okba N, Liaw K, Sárközy A, Livingston C, Trullen MI, Gary EN, Vadovics M, Laenger N, Londregan J, Khan MS, Omo-Lamai S, Muramatsu H, Blatney K, Hojecki C, Machado V, Maricic I, Smith TRF, Humeau LM, Patel A, Kossenkov A, Brenner JS, Allman D, Krammer F, Pardi N, Weiner DB.Cell Rep Med. 2025 Mar 13:102035. doi: 10.1016/j.xcrm.2025.102035. Online ahead of print.PMID: 40120578

Hamster and mouse $CD25^{+}CD4^{+}$ T cell responses to the C-terminal of leptospiral Ig-like protein A.

Duangsri J, Potisap C, Techawiwattanaboon T, Patarakul K, Sermswan RW, Wongratanacheewin S.Vet Immunol Immunopathol. 2025 Mar 17;283:110920. doi: 10.1016/j.vetimm.2025.110920. Online ahead of print.PMID: 40121947

Comparative genomic analysis of emerging non-typeable *Haemophilus influenzae* (NTHi) causing emerging septic arthritis in Atlanta.

Bixler BJ, Royer CJ, Petit Iii RA, Moller AG, Sefton S, Thomas S, Tunali A, Collins LF, Farley MM, Satola SW, Read TD.PeerJ. 2025 Mar 21;13:e19081. doi: 10.7717/peerj.19081. eCollection 2025.PMID: 40130174

Optimization of the enrichment medium for recombinant ChIL-4-ChIL-2 in Lactococcus lactis through response surface methodology.

Zhang HY, Yang YT, Zhang XQ, Dong SC, Wang LW, Chen YY, Zhang L, Lv XL, Bai R, Zheng MX.Poult Sci. 2025 Mar 14;104(5):105025. doi: 10.1016/j.psj.2025.105025. Online ahead of print.PMID: 40120242

Prediction of zero-dose children using supervised machine learning algorithm in Tanzania: evidence from the recent 2022 Tanzania Demographic and Health Survey.

Asnake AA, Seifu BL, Gebrehana AK.BMJ Open. 2025 Mar 22;15(3):e097395. doi: 10.1136/bmjopen-2024-097395.PMID: 40122556

Stakeholder perspective and sentiment in a rapidly growing United States adult vaccination environment.

Hill A, Arvin R, Beitelshees M, Guzman-Quilo C, Welch V, True JM, Jones CH.iScience. 2025 Feb 17;28(3):112009. doi: 10.1016/j.isci.2025.112009. eCollection 2025 Mar 21.PMID: 40124500

Quantifying Public Engagement With Science and Malinformation on COVID-19 Vaccines: Cross-Sectional Study.

Grimes DR, Gorski DH.J Med Internet Res. 2025 Mar 21;27:e64679. doi: 10.2196/64679.PMID: 40116851

COVID-19 vaccination uptake in Ohio: analyzing the difference between metro and non-metro residents.

Patel M, Gokun Y, DeGraffinreid C, Washington C, Baltic RD, Ringel MD, Paskett ED; Improving Access to Covid Testing in Ohio (IMPACT-Ohio) group part of the national RADx-UP initiative.BMC Public Health. 2025 Mar 22;25(1):1103. doi: 10.1186/s12889-025-22277-3.PMID: 40121451

Alcohol consumption does not influence SARS-CoV-2 **vaccine** immunogenicity: A stop the spread Ottawa cohort analysis.

Vachon A, Keeshan A, Galipeau Y, Crawley AM, Langlois MA, Cooper CL.Vaccine. 2025 Mar 22;55:127034. doi: 10.1016/j.vaccine.2025.127034. Online ahead of print.PMID: 40121732

A novel replicase-mediated self-amplifying RNA amplification mechanism of the SARS-CoV-2 replication-transcription system.

Liu HL, Lin S, Hung W, Chang DC, Lin SL.Biochem Biophys Res Commun. 2025 Mar 18;758:151654. doi: 10.1016/j.bbrc.2025.151654. Online ahead of print.PMID: 40117978

Willingness to be vaccinated against COVID-19 and associated factors in Migori County, Kenya: Analysis of cross-sectional observational survey data.

Ferrara G, Mudhune S, Rogers A, Mbeya J, Achieng A, Were V, Shumba C, Muga A, Starnes J.PLOS Glob Public Health. 2025 Mar 13;5(3):e0003699. doi: 10.1371/journal.pgph.0003699. eCollection 2025.PMID: 40080503

Cross-reactivity of rPvs48/45, a recombinant Plasmodium vivax protein, with plasma from Plasmodium falciparum endemic areas of Africa.

Balam S, Miura K, Ayadi I, Konaté D, Incandela NC, Agnolon V, Guindo MA, Diakité SAS, Olugbile S, Nebie I, Herrera SM, Long C, Kajava AV, Diakité M, Corradin G, Herrera S, Herrera MA.PLoS One. 2025 Mar 18;20(3):e0302605. doi: 10.1371/journal.pone.0302605. eCollection 2025.PMID: 40100850

Distrust, trauma, doubt, and protective reactions to coronavirus disease 2019: cautionary tales and lessons to learn for future pandemics: a case report.

Dariotis JK, Eldreth DA, Sloane SM, Noor I, Smith RL.J Med Case Rep. 2025 Mar 21;19(1):131. doi: 10.1186/s13256-025-05162-w.PMID: 40119468

Engineered vesicular cancer vaccines for immunosuppressive microenvironment reversion and in situ **vaccine** generation.

Li Y, Yu Y, Xia B, Zhao S, Li X, Hu Q, Tian Y, Wang Y, Zhou Y, Yang C, Zhang D, Zhang Z, Kong L.J Control Release. 2025 Mar 21:113658. doi: 10.1016/j.jconrel.2025.113658. Online ahead of print.PMID: 40122241

Head-to-head immunogenicity comparison of one-dose Cecolin and Gardasil in Chinese girls aged 9-14 years: A randomized and open-label clinical trial.

Xie F, Du K, Li J, Zhong S, Fan C, Bi Z, Zhang Q, Chen J, Ma S, Zhang D.Vaccine. 2025 Mar 20;55:127015. doi: 10.1016/j.vaccine.2025.127015. Online ahead of print.PMID: 40120437

The inactivated and ISA 61 VG adjuvanted **vaccine** enhances protection against cross-serotype Listeria monocytogenes.

Meng F, Wang Y, Chen C, Pan T, Li J, Xu Y, Wang Z, Yao H, Jiao X, Yin Y.Vet Res. 2025 Mar 20;56(1):60. doi: 10.1186/s13567-025-01483-2.PMID: 40114194

Immunogenicity and efficacy in mice of two adjuvant formulations based on the C -and N-terminus of merozoite surface protein 1 of Plasmodium yoelii.

Yun SY, Nguyen MN, Hong H, Bae GJ, Eom TH, Hoang VT, Park H, Yeo SJ.Vaccine. 2025 Mar 19;55:127032. doi: 10.1016/j.vaccine.2025.127032. Online ahead of print.PMID: 40112557

PGV001, a multi-peptide personalized neoantigen **vaccine** platform: Phase I study in patients with solid and hematological malignancies in the adjuvant setting.

Saxena M, Marron TU, Kodysh J, Finnigan JP, Onkar S, Kaminska A, Tuballes K, Guo R, Sabado RL, Meseck M, O'Donnell TJ, Sebra RP, Parekh S, Galsky MD, Blasquez A, Gimenez G, Bicak M, Cimen Bozkus C, Delbeau-Zagelbaum D, Rodriguez D, Acuna-Villaorduna A, Misiukiewicz KJ, Posner MR, Miles BA, Irie HY, Tiersten A, Doroshow DB, Wolf A, Mandeli J, Brody R, Salazar AM, Gnjatic S, Hammerbacher J, Schadt E, Friedlander P, Rubinsteyn A, Bhardwaj N.Cancer Discov. 2025 Mar 17. doi: 10.1158/2159-8290.CD-24-0934. Online ahead of print.PMID: 40094414

Impact of pre-existing immunity on humoral and cellular responses to CoronaVac in SARS-CoV-2 variants: A focus on common human Coronaviruses.

Pinpathomrat N, Seeyankem B, Sophonmanee R, Ongarj J, Surasombatpattana S.Asian Pac J Allergy Immunol. 2025 Mar 21. doi: 10.12932/AP-201124-1979. Online ahead of print.PMID: 40117238

[The Proposed Pandemic Agreement: A Pivotal Moment for Global Health Law.]

Villarreal PA, Gross A, Phelan A.J Law Med Ethics. 2025 Mar 21:1-4. doi: 10.1017/jme.2025.22. Online ahead of print.PMID: 40116223

[The immunogenic potential of an optimized mRNA lipid nanoparticle formulation carrying sequences from virus and protozoan antigens.]

Fernandes RS, de Assis Burle-Caldas G, Sergio SAR, Bráz AF, da Silva Leite NP, Pereira M, de Oliveira Silva J, Hojo-Souza NS, de Oliveira B, Fernandes APSM, da Fonseca FG, Gazzinelli RT, Dos Santos Ferreira D, Teixeira SMR.J Nanobiotechnology. 2025 Mar 18;23(1):221. doi: 10.1186/s12951-025-03201-8.PMID: 40102899

[Left behind no more: ensuring equitable **vaccine** access to curb mpox in Africa.]

Bolarinwa O, Mohammed A, Adebisi YA, Oyewo O.Int Health. 2025 Mar 22:ihaf018. doi: 10.1093/inthealth/ihaf018. Online ahead of print.PMID: 40119658

[Establishing a universal IVRP method for quadrivalent HPV vaccines to replace in vivo potency tests.]

Hu J, Jia Z, Wang M, Nie L, Fu W, Zhang Q, Qin H, Nie J, Xu X, Xu L, Wang F, Chen Y, Xing B, Li T, Li D, Li S, Xia N, Wang X, Huang W.NPJ Vaccines. 2025 Mar 22;10(1):55. doi: 10.1038/s41541-025-01106-z.PMID: 40118915

[Evaluation of Cellular Immune Responses After mRNA-1273 Vaccination in Children 6 Months to 11 Years of Age.]

Rostad CA, Campbell JD, Paulsen GC, Schnyder Ghamloush S, Xu W, Zheng L, McElrath MJ, De Rosa SC, Girard B, Das R, Anderson EJ, Creech CB.J Infect Dis. 2025 Mar 22:jiaf144. doi: 10.1093/infdis/jiaf144. Online ahead of print.PMID: 40119775

[Stakeholder Perceptions of the School Vaccination Program in Special Schools for Adolescents With Intellectual and Developmental Disability.]

Zaina D, Aemehdoust Z, Klinner C, Young A, Strnadová I, Wong H, Newman CE, Davies C, Skinner SR, Danchin M, Guy R, Carter A.J Sch Health. 2025 Mar 23. doi: 10.1111/josh.70003. Online ahead of print.PMID: 40121558

[Protective efficacy of the NcGRA7-deficient parasite as a live attenuated **vaccine** against Neospora caninum infection in mice.]

Abdou AM, Nishikawa Y.J Vet Med Sci. 2025 Mar 20. doi: 10.1292/jvms.24-0460. Online ahead of print.PMID: 40128980

[Community-Engaged Health Communication Strategies During the COVID 19 Pandemic: Experiences From Southern Andean Peru.]

Samuel J, Yon CJ, Frisancho A, Estrada L, Lourdes Valdez Jaén M, Paucar Pari DP, Rojas D.Community Health Equity Res Policy. 2025 Mar 15:2752535X251323637. doi: 10.1177/2752535X251323637. Online ahead of print.PMID: 40088181

The exclusion of pregnant women from an Ebola **vaccine** trial in Boende, western DRC: Perceptions of female participants who became pregnant and community members.

Salloum M, Larivière Y, Bikioli Bolombo F, Zola Matuvanga T, Lemey G, Maketa V, Muhindo-Mavoko H, Van Damme P, Mitashi P, Bastiaens H, Van Geertruyden JP, Paviotti A.Vaccine. 2025 Mar 22;55:127000. doi: 10.1016/j.vaccine.2025.127000. Online ahead of print.PMID: 40121733

Population genetic structure of the fibrinogen-related protein 1 (FREP1) in Iranian isolates of Anopheles stephensi as a promising mosquito-based malaria **vaccine** candidate.

Kheirkhah O, Pirahmadi S, Mehrizi AA, Raz A.Gene. 2025 Mar 21:149436. doi: 10.1016/j.gene.2025.149436. Online ahead of print.PMID: 40122414

Global availability of critical reagents for biologicals testing - Current status, challenges and possible solutions.

Viviani L, Vandeputte J, Smith D, Coppens E, Mahmood K, Goel S, Wenzel E, Sun L, Milne C, Meyer Q, Rubbrecht M, McGoldrick M, Jungbaeck C.Biologicals. 2025 Mar 21;90:101821. doi: 10.1016/j.biologicals.2025.101821. Online ahead of print.PMID: 40120155

Effectiveness of a new cationic lipid-based nanovaccine for enhancing immersion vaccination against Flavobacterium oreochromis in red tilapia (Oreochromis sp.).

Kitiyodom S, Kamble MT, Yostawonkul J, Thompson KD, Pirarat N.Fish Shellfish Immunol. 2025 Mar 19;161:110289. doi: 10.1016/j.fsi.2025.110289. Online ahead of print.PMID: 40118230

Safety of pertussis vaccination in pregnancy and effectiveness in infants: A Danish national cohort study 2019-2023.

Kildegaard H, Jensen A, Andersen PHS, Dalby T, Gram MA, Lidegaard Ø, Stensballe LG.Clin Microbiol Infect. 2025 Mar 20:S1198-743X(25)00133-8. doi: 10.1016/j.cmi.2025.03.014. Online ahead of print.PMID: 40120753

Impact of 10-valent pneumococcal conjugate **vaccine** on the epidemiology of otitis media with otorrhea among Bangladeshi children.

Naziat H, Rahman MH, Das RC, Islam M, Saha S, Hussain MM, Sattar A, Uddin MJ, Alam MJ, Whitney CG, Saha S, Hooda Y, Saha SK.Vaccine. 2025 Mar 19;55:126995. doi: 10.1016/j.vaccine.2025.126995. Online ahead of print.PMID: 40112554

Assessing the efficacy and safety of sequential intravesical gemcitabine and docetaxel - does time from transurethral resection of bladder tumour to induction matter?

McElree IM, Henning GM, Steinberg RL, Hougen HY, Mott SL, O'Donnell MA, Packiam VT.BJU Int. 2025 Mar 21. doi: 10.1111/bju.16716. Online ahead of print.PMID: 40118650

Circulating foamy macrophages and other features of bacillus Calmette-Guérin challenge in Golden Syrian hamsters.

Putz EJ, Andreasen CB, Stasko JA, Hamond C, Olsen SC, Nally JE, Palmer MV.Vaccine. 2025 Mar 20;55:127037. doi: 10.1016/j.vaccine.2025.127037. Online ahead of print.PMID: 40117727

Impact of Social Media Influencers on Amplifying Positive Public Health Messages.

Flaherty GT, Mangan RM.J Med Internet Res. 2025 Mar 21;27:e73062. doi: 10.2196/73062.PMID: 40117580

Effectiveness of Influenza Vaccination in Children Aged 6 to 59 Months during the Inaugural 2022-2023 Season in Andalusia, Spain.

Palma-García A, Moreno-Pérez D, Rivera-Izquierdo M, Cardero-Rivas M, Del Diego-Salas J, Lorusso N.J Pediatr. 2025 Mar 21:114558. doi: 10.1016/j.jpeds.2025.114558. Online ahead of print.PMID: 40122278

A Multiplex Bead Serology Panel For Vaccine-Preventable Diseases Using Dried Blood Spots.

Olivo PD, Ghatak S, Rasch R.Risk Manag Healthc Policy. 2025 Mar 20;18:923-932. doi: 10.2147/RMHP.S506025. eCollection 2025.PMID: 40129703

Effective preparation and immunogenicity analysis of antigenic proteins for prevention of porcine enteropathogenic coronaviruses PEDV/TGEV/PDCoV.

Jia X, Liu H, Sun Y, Wang N, Qian M, Wang Z, Li M, Xiang Y, Wei Z, Zheng L.Int J Biol Macromol. 2025 Mar 21:142394. doi: 10.1016/j.ijbiomac.2025.142394. Online ahead of print.PMID: 40122422

Human papillomavirus genotype distribution among high-grade cervical lesions in French women born between 1972 and 1993.

Lenoir P, Guillet J, Desmarets M, Baraquin A, Ramanah R, Rousse J, Mougin C, Lepiller Q, Prétet JL; HPV Impact Study Group.J Gynecol Obstet Hum Reprod. 2025 Mar 21:102945. doi: 10.1016/j.jogoh.2025.102945. Online ahead of print.PMID: 40122237

Examining the Impact of a Culture-Centric Narrative on COVID-19 Vaccines and Mental Wellness Among Latinos in the Midwest.

Medero K, Hovick S, Stranne Miller S, Charlton JA, Moyer-Gusé E, Padamsee TJ.J Health Commun. 2025 Mar 19:1-10. doi: 10.1080/10810730.2025.2478914. Online ahead of print.PMID: 40108477

Patentes registradas en Patentscope

Estrategia de búqueda: (Vaccine) AND DP:([03.03.2025 TO 12.03.2025]) *as the publication date 50 records.*

1.20250082749VACCINE ADJUVANT

US - 13.03.2025

CUBA

Clasificación Internacional A61K 39/39Nº de solicitud 18808565Solicitante Wisconsin Alumni Research FoundationInventor/a Bruce Steven Klein

A Dectin-2 ligand vaccine adjuvant and a method of making and using the Dectin-2 ligand vaccine adjuvant in a vaccine to immunize a patient are disclosed. Also discloses is a vaccine composition comprising a Bl-Eng2 antigen and methods of using the vaccine composition to immunize a subject against a fungal infection.

2.4523701ADENOVIRALER VEKTORIMPFSTOFF GEGEN DAS RESPIRATORISCHE SYNZYTIALVIRUS UND HERSTELLUNGSVERFAHREN DAFÜR UND VERWENDUNG DAVON

EP - 19.03.2025

Clasificación Internacional A61K 39/155Nº de solicitud 23802958Solicitante CANSINO BIOLOGICS INCInventor/a YANG ZENING

The present disclosure provides a respiratory syncytial virus-based adenovirus vector vaccine, a method for preparing same, and use thereof. Specifically, an adenovirus vector suitable for a transmucosal formulation against RSV is selected from a variety of adenovirus vectors. The vaccine is administered by inhalation, which can simulate the virus infection process, stimulate the immune response, and avoid local adverse effects such as injection site pain and the like due to intramuscular injection. By means of inhalation, the atomized vaccine can finally reach the lung through the respiratory tract, thus inducing the respiratory tract mucosal immunity while stimulating the humoral immunity and cellular immunity. The stimulation of the pulmonary mucosal immunity is the most effective method for preventing RSV infection and spread. The vaccine stimulates the lung mucosal immunity and exhibits a well induced humoral immunity level. The present disclosure screens the dose for inhalation and the selected dose is lower compared with the that of the intramuscular injection, thus possessing better safety.

3.20250090655BOOSTING SARS-COV-2 IMMUNITY WITH A LENTIVIRAL-BASED NASAL VACCINE

US - 20.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18726286Solicitante INSTITUT PASTEURInventor/a Pierre CHARNEAU

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.

4.WO/2025/054577NANOPARTICLE BASED SUBUNIT VACCINE FOR AFRICAN SWINE FEVER VIRUS

WO - 13.03.2025

Clasificación Internacional A61K 39/12Nº de solicitud PCT/US2024/045770Solicitante OHIO STATE INNOVATION FOUNDATIONInventor/a KENNEY, Scott

Disclosed herein is a vaccine composition, wherein the vaccine is effective against African Swine Fever virus (ASFV), wherein the vaccine comprises at least one immunogenic peptide, wherein said immunogenic peptide comprises CD2v, EP153R, P72, p10, CP530R, E199L, or a functional variant or functional fragment thereof. These compositions can be present in the form of a vaccine for administration. The vaccine can be present in a kit, for example. The composition can be administered to a subject in need thereof in order to prevent, or lessen the severity of, ASFV infection in the subject.

5.WO/2025/053097DENGUE VIRUS VACCINE AND DENGUE VIRUS VACCINE KIT

WO - 13.03.2025

Clasificación Internacional A61K 39/12Nº de solicitud PCT/JP2024/031425Solicitante KAGOSHIMA UNIVERSITYInventor/a KOHARA Michinori

This dengue virus vaccine contains a recombinant vaccinia virus having both DNA that encodes a region other than NS1 in a non-structural protein of a dengue virus and a promoter that regulates the expression of a region other than NS1. The dengue virus vaccine is administered twice or more to a patient to be vaccinated.

6.4522728VERFAHREN ZUR HERSTELLUNG UND EXPANSION EINER IMMUNZELLPOPULATION FÜR KREBSTHERAPIE, POTENZTEST ZUR TUMORERKENNUNG, BIOLOGISCHE IMPFSTOFFZUBEREITUNG UND EPITOP-TARGET FÜR ANTIKÖRPER

EP - 19.03.2025

Clasificación Internacional C12N 5/0783Nº de solicitud 23729178Solicitante FUNDACAO D ANNA DE SOMMER CHAMPALIMAUD E DR CARLOS MONTEZ CHAMPALIMAUD CENTRO DE INVESTIG DA FUNDACAInventor/a MENDONÇA GORGULHO CAROLINA

The present invention relates to a method of preparing and expanding a population of immune cells, a potency assay for tumor recognition, a biological vaccine preparation to provide anti-tumor response or an antiviral response for cancer therapy and epitopes targets for antibodies which are useful for the construction of chimeric antigen receptors. The present invention is based on the fact that private or commonly shared tumor-associated antigens or private target antigens can be recognized by clinically relevant immune cells. Such target antigens could be used to prepare a biological vaccine preparation to provide anti-tumor response or an antiviral response by expanding a certain set of T-cells or B-cells and boosting the immune response in cancer therapy. The present invention guides the selection of viable target antigens in designing an anti-tumor vaccine to remove potentially harmful autoimmune responses or pro- tumorigenic immune responses and aids to select the biologically and clinically most relevant set of immune cells specifically directed against cancer cells harvested from tumor infiltrating lymphocytes or from different anatomical sites for the active cellular therapy of patients with cancer.

7.WO/2025/050503USE OF RALTITREXED IN TREATING DISEASES CAUSED BY POXVIRUS INFECTIONS

WO - 13.03.2025

Clasificación Internacional A61K 31/4709Nº de solicitud PCT/CN2023/130769Solicitante BEIJING UNIVERSITY OF CHEMICAL TECHNOLOGYInventor/a FAN, Huahao

Provided is a use of raltitrexed in relieving and/or treating diseases caused by poxvirus infections. In view of the observed strong inhibition effect of raltitrexed on poxviruses including monkeypox virus and vaccinia virus, raltitrexed is very likely to become a wonder drug for diseases caused by poxvirus infections including monkeypox virus and vaccinia virus. As a potential drug for treating diseases caused by poxvirus infections including monkeypox virus and vaccinia virus, raltitrexed has great medicinal value and is a promising candidate drug for treating diseases caused by poxvirus infections including monkeypox virus and vaccinia virus.

8.20250095771METHODS OF VACCINE DESIGN

US - 20.03.2025

Clasificación Internacional G16B 5/20Nº de solicitud 18729517Solicitante NEC Laboratories Europe GmbHInventor/a Filippo GRAZIOLI

A method for selecting an amino acid sequence for inclusion in a neoantigen vaccine from a set of candidate neoantigen amino acid sequences is provided. A plurality of cancer cells are simulated based on a set of input data related to a patient by predicting a cell surface presentation of each cancer cell. For each candidate neoantigen amino acid sequence, a likelihood is predicted of each candidate neoantigen amino acid sequence eliciting an immune response to the plurality of cancer cells based on the predicted cell surface presentation of each cancer cell. One or more amino acid sequences is selected for inclusion in the neoantigen vaccine that maximizes a likelihood of the neoantigen vaccine eliciting an immune response to the plurality of cancer cells based on the predicted likelihood of each candidate neoantigen amino acid sequence eliciting an immune response to the plurality of cancer cells.

9.WO/2025/054144RECOMBINANT VACCINIA VIRUS AND METHODS OF USE THEREOF

WO - 13.03.2025

Clasificación Internacional A61K 35/768Nº de solicitud PCT/US2024/045092Solicitante REIGNITE THERAPEUTICS INC.Inventor/a MARURI AVIDAL, Liliana

The present disclosure provides a replication-competent, recombinant oncolytic vaccinia virus; and compositions comprising the replication-competent, recombinant oncolytic vaccinia virus. The present disclosure also provides use of the vaccinia virus or composition for inducing oncolysis in an individual having a tumor.

10.WO/2025/054380NOVEL HEPATITIS C VIRUS (HCV) IMMUNOGENS AND RELATED USES

WO - 13.03.2025

Clasificación Internacional A61K 39/29Nº de solicitud PCT/US2024/045459Solicitante THE SCRIPPS RESEARCH INSTITUTEInventor/a HE, Linling

Provided are Hepatitis Virus C (HCV) soluble fusion immunogens (SE1E2) that are derived from engineered or redesigned HCV sE1 and sE2 polypeptides and are configured to form native-like E1E2 interface that may be used in vaccine formulations. Also provided are related vaccine compositions that display the engineered

SE1E2 immunogens after cleavage into an SE1E2 protein with native E1E2 conformation on a self-assembling nanoparticle scaffold. Also provided are methods of using the immunogens and vaccine compositions in methods for prophylaxis or therapy for HCV infections.

11.WO/2025/054140A METHOD OF VACCINATING SALMONIDS AGAINST P SALMONIS

WO - 13.03.2025

Clasificación Internacional A61K 39/02Nº de solicitud PCT/US2024/045081Solicitante ZOETIS SERVICES LLCInventor/a BUENE, Glenn Gjermundsen

Provided is a method of protecting a salmonid against *P salmonis* infection, the method comprising: obtaining a sample of a *P salmonis* vaccine; determining viability of *P salmonis* in said sample thereby confirming that said *P salmonis* vaccine contains modified live *P salmonis*; and administering the vaccine that contains modified live *P salmonis* to the salmonid in need of said protection.

12.4522208VERFAHREN ZUR HERSTELLUNG VON IMPFSTOFFFORMULIERUNGEN MIT KONSERVIERUNGSMITTELN

EP - 19.03.2025

Clasificación Internacional A61K 39/09Nº de solicitud 23728433Solicitante PFIZERInventor/a BRUCHSALER MICHAEL DAVID

The present invention relates to a process for the production of a conjugate vaccine comprising a preservative. The invention relates in particular to a process for the production of a conjugate vaccine where the preservative is hydrophobic and viscous (such as 2-phenoxyethanol (2-PE)).

13.WO/2025/054979BROAD-SPECTRUM INFLUENZA A VACCINE IMMUNOGEN COMPOSITION AND USE THEREOF

WO - 20.03.2025

Clasificación Internacional C07K 19/00Nº de solicitud PCT/CN2023/119171Solicitante FUDAN UNIVERSITYInventor/a XU, Jianqing

A broad-spectrum influenza A vaccine immunogen composition and the use thereof. Provided is a nucleic acid molecule encoding an immunogenic peptide, the immunogenic peptide comprising: tandem M2e peptide fragments, an HA2 peptide fragment derived from influenza virus H7N9 subtype; a multimerized motif peptide fragment, and optionally, one or more linker peptide fragments independently located between the peptide fragments, the nucleic acid molecule comprising encoding nucleic acids of the peptide fragments. The broad-spectrum influenza A vaccine can induce organisms to generate antigen-specific immune responses, and can generate a high-titer antibody just in 14 days after the last vaccination, which can completely prevent attacks from various influenza A virus subtypes.

14.20250090653SARS COV-2 VACCINE, ASSOCIATED POLYNUCLEOTIDES, AND METHODS OF USE

US - 20.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18713809Solicitante AEGIS LIFE, INC.Inventor/a Hong JIANG

The present disclosure relates to vaccines and related polynucleotides useful in eliciting an immune response to the SARS-CoV-2 virus and related methods of use. The vaccine formulations further comprise DNA vectors encoding SARS-Cov-2 spike protein variants comprising single amino acid substitutions and polynucleotides which encode an adjuvant, further wherein the vaccine is formulated with a proteolipid vesicle or fusogenic membrane protein.

15.WO/2025/055944TREATMENT AND PREVENTION OF HEPATITIS B USING COVID-19 VACCINE

WO - 20.03.2025

Clasificación Internacional A61K 39/12Nº de solicitud PCT/CN2024/118280Solicitante ZHANG, John QiInventor/a ZHANG, John Qi

Provided are treatment and prevention of hepatitis B. In particular, provided is a method for treating or preventing hepatitis B in a subject, the method comprises: administering effective amount of COVID-19 vaccine to the subject. Further provided is use of COVID-19 vaccine in manufacturing a drug for treating or preventing hepatitis B.

16.20250082747PORCINE CORONAVIRUS VACCINES

US - 13.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18893431Solicitante Boehringer Ingelheim Animal Health USA Inc.Inventor/a Scott ACKERMAN

The present invention relates to a vaccine for protecting a pig against diseases associated with corona virus infection including porcine epidemic diarrhea virus (PEDV) and/or porcine deltacorona virus (PDCoV). The vaccine commonly includes inactivated/killed PEDV (e.g., chemically inactivated PED virus), and/or recombinant PEDV antigen, and/or an adjuvant inactivated/killed PDCoV (e.g., chemically inactivated PDCoV virus), and/or recombinant PDCoV antigen and an adjuvant. Methods for protecting pigs against diseases associated with PEDV and/or PDCoV and methods of producing the porcine epidemic diarrhea virus and/or porcine deltacorona virus vaccine are also provided.

17.20250090647OPTIMIZED MULTIDIMENSIONAL BIOLOGICAL ACTIVITY OF POLY-ICLC WITH CONTROLLED COMPONENT SIZE AND FORMULATION

US - 20.03.2025

Clasificación Internacional A61K 39/12Nº de solicitud 18445640Solicitante Oncovir, Inc.Inventor/a Andres M. Salazar

Poly-ICLC molecules and methods for producing them, including certain specific molecular weight molecules having improved activity in certain applications. These molecules may be incorporated in pharmaceutically or veterinary acceptable excipients and carriers for a number of uses in humans, in domestic animals and in wild animals. Such uses include (but are not limited to) prophylaxis pre-exposure prophylaxis, treatment and/or inflammatory symptom attenuation of viral or microbial infections; immunomodulating, vaccine adjuvant, antiviral, and/or anti-inflammatory effects mediated through activation of the MDA5, TLR3 and other dsRNA dependent enzyme systems; antineoplastic effects either alone or when combined with therapeutic vaccine or other anticancer immunologic agents; preventive cancer vaccine adjuvant effects in patients at risk for cancer.

The molecules may be of particular use against SARS-CoV-2 infection or a cytokine storm caused by a SARS-CoV-2 infection. While dosage may be adjusted depending on the specific target and the specific patient, the dose should be sufficient to activate the MDA5 and TLR3 enzyme systems in the patient. For humans the dose is between approximately 0.5 and 50 micrograms per kilogram body weight. The nature of the molecule does not demand any specific route of administration. Therefore, the route can be selected based on the specific target and the specific patient, and could include (but not be limited to) IM, SC, IT, IV or IN. Preferably, administration would comprise two or three repeated dose cycles spaced 24 to 96 hours apart. Depending on the target and the patient's response, dose cycles may be repeated 2 to 4 times per month.

18.20250090656NUCLEIC ACID VACCINE AGAINST THE SARS-COV-2 CORONAVIRUS

US - 20.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18962638Solicitante INSTITUT PASTEURInventor/a Etienne SIMON-LORIERE

The invention relates to an immunogenic or vaccine composition against the 2019 novel coronavirus (SARS-COV-2), comprising a nucleic acid construct encoding a SARS-COV-2 coronavirus Spike(S) protein antigen or a fragment thereof comprising the receptor-binding domain, wherein the nucleic acid construct sequence is codon-optimized for expression in 5 human.

19.20250090657NUCLEIC ACID VACCINE AGAINST THE SARS-COV-2 CORONAVIRUS

US - 20.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18962691Solicitante INSTITUT PASTEURInventor/a Etienne SIMON-LORIERE

The invention relates to an immunogenic or vaccine composition against the 2019 novel coronavirus (SARS-CoV-2), comprising a nucleic acid construct encoding a SARS-CoV-2 coronavirus Spike(S) protein antigen or a fragment thereof comprising the receptor-binding domain, wherein the nucleic acid construct sequence is codon-optimized for expression in 5 human.

20.WO/2025/055956VARICELLA-ZOSTER VIRUS MRNA VACCINE AND USE THEREOF

WO - 20.03.2025

Clasificación Internacional A61K 39/25Nº de solicitud PCT/CN2024/118331Solicitante SHENZHEN RHEGEN BIOTECHNOLOGY CO., LTD.Inventor/a HU, Yong

A varicella-zoster virus mRNA vaccine and the use thereof. First provided is a mRNA molecule, an encoding region sequence of the mRNA molecule comprising a nucleotide sequence that encodes an amino acid sequence shown as SEQ ID NO: 1, and the encoding region sequence preferably comprising a nucleotide sequence shown as any one of SEQ ID NO: 2 to SEQ ID NO: 11, or a nucleotide sequence which has at least 93% similarity as a nucleotide sequence shown as any one of SEQ ID NO: 2 to SEQ ID NO: 11 and encodes an amino acid sequence same as that encoded by said nucleotide sequence. Using the mRNA molecule for preparing vaccines can reduce the production cost of the vaccines and enable the vaccines to have stable physical and chemical properties. In addition, improving the protein expression enhances the immune effect of vaccines, and therefore enhances VZV-gE-specific humoral immunity and cellular immunity effects.

21.4523756IMMUNOTHERAPEUTISCHER IMPFSTOFF UND ANTIKÖRPERKOMBINATIONSTHERAPIE

EP - 19.03.2025

Clasificación Internacional A61P 35/00Nº de solicitud 24223260Solicitante TRANSGENEInventor/a SLOS PHILIPPE

The present invention relates to a combination product, composition(s) and kit of parts comprising at least (i) a therapeutic vaccine and (ii) one or more immune checkpoint modulator(s). The present invention also concerns a method for treating a proliferative or an infectious disease as well as a method for eliciting or stimulating and/or re-orienting an immune response, wherein said methods comprise administering to a subject in need thereof said combination product or said composition(s).

22.20250090652HENIPAVIRUS VACCINE

US - 20.03.2025

Clasificación Internacional A61K 39/155Nº de solicitud 18974663Solicitante CureVac SEInventor/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.

23.4522211UNIVERSELLE INFLUENZA- UND RESPIRATORISCHE VIRUSIMPFSTOFFE AUF DER BASIS REKOMBINANTER UNTEREINHEITEN

EP - 19.03.2025

Clasificación Internacional A61K 39/295Nº de solicitud 23804464Solicitante UNIV GEORGIA STATE RES FOUNDInventor/a KANG SANG-MOO

In accordance with the purpose(s) of the present disclosure, as embodied and broadly described herein, the disclosure relates to universal influenza vaccines and methods of making the same. Also disclosed is method for vaccinating a subject for influenza A that involves administering a cross-protective influenza vaccine disclosed herein to a subject in need thereof by intranasal, intramuscular, subcutaneous, transdermal, or sublingual administration.

24.WO/2025/054360INJECTABLE HYDROGEL FOR SUSTAINED CO-DELIVERY OF AN ANTIGEN AND AN ADJUVANT, AND USES THEREOF

WO - 13.03.2025

Clasificación Internacional A61K 39/02Nº de solicitud PCT/US2024/045433Solicitante THE REGENTS OF THE UNIVERSITY OF CALIFORNIAInventor/a WANG, Szu-Wen

The disclosure provides for a vaccine depot formulation that comprises a biodegradable thermosensitive hydrogel that has been loaded or embedded with nanoparticles that comprise an antigen and adjuvant, and uses thereof for protecting a subject from an infection or disease.

25.WO/2025/059546PROTEOLYSIS-TARGETING CHIMERA TUMOR VACCINE

WO - 20.03.2025

Clasificación Internacional A61K 39/00Nº de solicitud PCT/US2024/046728Solicitante TRUSTEES OF TUFTS COLLEGEInventor/a XU, Qiaobing

Disclosed are compounds comprising an active agent covalently linked to a tumor antigen. Also disclosed herein nanoparticles comprising a tumor antigen covalently linked to an active agent and a plurality of lipid or lipidoids.

26.20250092083STEROL BASED IONIZABLE LIPIDS AND LIPID NANOPARTICLES COMPRISING THE SAME

US - 20.03.2025

Clasificación Internacional C07J 7/00Nº de solicitud 18907013Solicitante Advanced RNA Vaccine (ARV) Technologies, Inc.Inventor/a Jiangsheng XU

Described are compounds, compositions, and methods for delivery of therapeutic, diagnostic, or prophylactic agents (for example, a nucleic acid).

27.WO/2025/050636MACROCYCLIC PYRAZOLOPYRIMIDINE COMPOUND AND USE THEREOF

WO - 13.03.2025

Clasificación Internacional C07D 498/22Nº de solicitud PCT/CN2024/086747Solicitante ZHEJIANG YANGSHENGTANG INSTITUTE OF NATURAL MEDICATION CO., LTD.Inventor/a XU, Pan

The present application relates to the field of biomedicine, and in particular to a macrocyclic pyrazolopyrimidine compound which has better immunomodulatory activity and selectivity. The present invention further provides a use of the macrocyclic pyrazolopyrimidine compound for preventing or treating a TLR7-related disease, and a use as a vaccine adjuvant, a photodynamic therapeutic agent, and a drug conjugate.

28.20250092421A MURINE CYTOMEGALOVIRUS VACCINE VECTOR FOR ADMINISTRATION IN A NON-MOUSE SUBJECT

US - 20.03.2025

Clasificación Internacional C12N 15/86Nº de solicitud 18832562Solicitante Helmholtz-Zentrum für Infektionsforschung GmbHInventor/a Luka CICIN-SAIN

The invention relates to a replication-deficient murine Cytomegalovirus (MCMV) vector for use in inducing an antigen-specific immune response in a subject, wherein the subject is not a mouse, and wherein said vector expresses a disease antigen. The invention further relates to a pharmaceutical composition comprising a replication-deficient murine Cytomegalovirus (MCMV) vector suitable to induce an antigen-specific immune response in a subject, wherein said vector expresses a disease antigen, and wherein the composition is configured for administration to a non-mouse subject. In embodiments, the vector has a disrupted immediate-early 2 (ie2) gene causing a replication deficiency of said vector in a non-mouse subject. The invention further relates to a pharmaceutical composition for use in inducing an antigen-specific immune response in a non-mouse subject to the expressed disease antigen.

29.WO/2025/054236SARS-COV-2 VACCINE COMPOSITIONS AND RELATED METHODS

WO - 13.03.2025

Clasificación Internacional A61K 39/12Nº de solicitud PCT/US2024/045262Solicitante FLAGSHIP PIONEERING INNOVATIONS VII, LLCInventor/a ACKER, Daniel William Menon

Provided herein are SARS-CoV-2 spike proteins and polypeptides (*e.g.,* SARS-CoV-2 spike proteins and polypeptide immunogens (and immunogenic fragments and immunogenic variants thereof)) comprising at least one non-naturally occurring glycosylation site, and nucleic acid molecules encoding the same. Further provided herein are compositions (*e.g.,* pharmaceutical compositions) and vaccines comprising the same for use in *e.g.,* the prevention, treatment, and/or amelioration of a SARS-CoV-2 infection.

30.WO/2025/052001METHODS AND COMPOSITIONS FOR IMPROVING IMMUNE RESPONSE

WO - 13.03.2025

Clasificación Internacional A61K 31/546Nº de solicitud PCT/EP2024/075141Solicitante MNEMO THERAPEUTICSInventor/a SAITAKIS, Michael

The present invention relates to the use of KMT inhibitors and in particular of Suv39h1 inhibitors to increase immune response, and in particular immune cell mediated response, notably elicited by a vaccine or immunogenic composition.

31.20250090654CORONAVIRUS VACCINE COMPOSITIONS AND USES THEREOF

US - 20.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18725577Solicitante BOOST BIOPHARMA, INC.Inventor/a Fritz Schomburg

Provided is a recombinant polypeptide containing at least one immunogenic fragment of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) spike glycoprotein. Also provided are a method for preventing, inhibiting, reducing, eliminating, protecting, or delaying the onset of an infection or an infectious clinical condition caused by a coronavirus in a subject which includes administering to the subject the recombinant polypeptide, and a method for inducing an immune response against a coronavirus in a subject, which includes administering to the subject the recombinant polypeptide.

32.WO/2025/056665IMMUNOGENIC VARIANTS OF HUMAN CYTOMEGALOVIRUS GLYCOPROTEIN B

WO - 20.03.2025

Clasificación Internacional C07K 14/045Nº de solicitud PCT/EP2024/075475Solicitante EVAXION BIOTECH A/SInventor/a SØRENSEN, Anders Bundgård

Agents useful for immunotherapy and prophylaxis of infection with human cytomegalovirus (hCMV) are provided. The agents are variant gB polypeptides (or genetic material encoding the polypeptides), wherein disulphide bridges are introduced in the amino acid sequence of gB so as to stabilize the pre-fusion conformation of the protein. The disulphide bridges are introduced via double substitutions in SEQ ID NO: 1 and are selected from the group consisting of 1) I103C and V645C; 2) A97C and A538C; and 3) G543C and K617C. Also disclosed are vaccine compositions as well as methods for their use.

33.WO/2025/059470STABILIZED SARS-COV-2 S ANTIGENS

WO - 20.03.2025

Clasificación Internacional C07K 14/165Nº de solicitud PCT/US2024/046623Solicitante BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEMInventor/a MCLELLAN, Jason

Provided herein are engineered protein comprising stabilized coronavirus S protein ectodomains, such as stabilized SARS-CoV-2 S2 domain-only ectodomains that exhibit improved conformational homogeneity and biophysical stability. The ectodomains are incorporated into nanoparticles. Methods are also provided for use of the stabilized coronavirus S protein ectodomains and/or nanoparticles as diagnostics, in screening platforms, and/or in vaccine compositions.

34.WO/2025/058011COMPOSITION FOR NASAL ADMINISTRATION

WO - 20.03.2025

Clasificación Internacional A61K 39/00Nº de solicitud PCT/JP2024/032674Solicitante OSAKA UNIVERSITYInventor/a HIRAI, Toshiro

The present invention addresses the problem of providing a technique for improving the antibody-inducing ability of a nasal vaccine, and a composition for nasal administration having improved antibody-inducing ability. The problem is solved by a composition for nasal administration containing: at least one substance selected from the group consisting of antigen polypeptides and polynucleotides including a coding sequence of an antigen polypeptide; and a sugar component that is a sugar and/or a sugar alcohol, wherein the content of the sugar component is more than 4.5% by mass/volume.

35.20250090648NEXT GENERATION MRNA VACCINES

US - 20.03.2025

Clasificación Internacional A61K 39/12Nº de solicitud 18810225Solicitante FuTr Bio Ltda.Inventor/a Daniel Santos MANSUR

Described herein are next generation vaccine compositions, including mRNA vaccines having flavivirus untranslated regions and vaccines comprising a (major histocompatibility complex) MHC binding peptide.

36.WO/2025/055167RECOMBINANT PSEUDORABIES VIRUS FOR HIGHLY-SENSITIVE EXPRESSION OF RED FLUORESCENT PROTEIN, AND PREPARATION METHOD THEREFOR AND USE THEREOF

WO - 20.03.2025

Clasificación Internacional C12N 7/01Nº de solicitud PCT/CN2023/137611Solicitante SHENZHEN INSTITUTES OF ADVANCED TECHNOLOGY CHINESE ACADEMY OF SCIENCESInventor/a LIN, Kunzhang

Provided are a recombinant pseudorabies virus for highly-sensitive expression of a red fluorescent protein, and a preparation therefor and a use thereof, specifically comprising: (1) constructing a recombinant plasmid to prepare the recombinant pseudorabies virus for highly-sensitive expression of the red fluorescent protein; and (2) a use in neural circuit tracing, wherein the recombinant pseudorabies virus for highly-sensitive expression of the red fluorescent protein prepared by a platform can achieve efficient retrograde trans-synaptic labeling of a neural network. The recombinant pseudorabies virus for highly-sensitive expression of the red fluorescent protein and for retrograde trans-synaptic labeling is successfully obtained, such that the problem of low red fluorescence expression efficiency in existing methods is solved, and the recombinant pseudorabies virus achieves high application value and wide market prospects in neural circuit structure and function analysis, vaccine and drug research and development, disease model establishment, detection of neural network loss and reconstruction, virus replication or pathogenic mechanism research, etc.

37.WO/2025/055902ATTENUATED INFECTIOUS BRONCHITIS VIRUS AND A VACCINE COMPRISING THE SAME

WO - 20.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud PCT/CN2024/118017Solicitante BOEHRINGER INGELHEIM VETMEDICA (CHINA) CO., LTD.Inventor/a TONG, Chao

The present invention relates the field of animal health. The present invention provides an attenuated infectious bronchitis virus (IBV). The attenuated infectious bronchitis virus can protect chickens against IBV infection.

38.WO/2025/054556RNA COMPOSITIONS FOR DELIVERY OF MPOX ANTIGENS AND RELATED METHODS

WO - 13.03.2025

Clasificación Internacional A61K 39/12Nº de solicitud PCT/US2024/045726Solicitante BIONTECH SEInventor/a WALLS, Alexandra

The present disclosure provides pharmaceutical compositions for delivery of mpox virus antigens (e.g., an mpox vaccine) and related technologies (e.g., components thereof and/or methods relating thereto). For example, the present disclosure provides polyribonucleotides encoding one or more mpox antigens or antigenic fragments thereof.

39.2633670SYSTEMS AND METHODS FOR MONITORING DISEASE IN ANIMAL POPULATIONS

GB - 19.03.2025

Clasificación Internacional G16H 50/80Nº de solicitud 202405833Solicitante PERSONALISED DIAGNOSTICS LTDInventor/a ANDREW HALLIDAY

A computer implemented method of predicting the spread of a pathogen or parasite in an animal population. A plurality of indications of the presence of a pathogen or parasite are obtained from a first plurality of geographical locations 122. Based on the indications, the boundaries of one or more polygons are determined. Each polygon represents a geographical area in the region within which the pathogen or parasite is present 124. Updated indications of the presence of a pathogen or parasite are obtained from a second plurality of geographical locations 126. The boundaries of the polygons are adjusted based on the updated indications 128. Output data is provided to overlay the polygons and the adjusted polygons onto a map of the geographical region for predicting a further geographical area where the pathogen or parasite will be present at a future time 130. Optionally, indications comprise diagnostic data, biosensor data, data relating to the animal's genomic profile, vaccine status or geographical information. Indications may also relate to vectors capable of transmitting the pathogen or parasite in the animal population.

40.WO/2025/054327CONSTRUCTS, COMPOSITIONS, AND METHODS FOR REDUCING HYPERSENSITIVITY REACTIONS TO THERAPEUTIC AGENTS

WO - 13.03.2025

Clasificación Internacional A61K 38/16Nº de solicitud PCT/US2024/045386Solicitante THE REGENTS OF THE UNIVERSITY OF COLORADO, A BODY CORPORATEInventor/a SIMBERG, Dmitri

Embodiments of the present invention generally relate to novel constructs, compositions, and methods for reducing hypersensitivity reactions. In certain embodiments, constructs, compositions, and methods are disclosed for reducing or eliminating hypersensitivity reactions using targeted complement inhibitors to complement C3 deposited on therapeutically relevant nanoparticles and nanocomponents. In some embodiments, constructs disclosed herein can include at least one of a fusion polypeptide or isolated fusion polypeptide with a) a component comprising a mammalian complement receptor 2 (CR2) or fragment thereof; and b) a component comprising regulatory consensus repeats of a mammalian complement receptor 1 (CR1) for use alone or in a combination composition with at least one nanoparticle-containing therapeutic, therapeutic-containing nanoparticle, vaccine, or a combination thereof.

41.20250092104IMMUNOTHERAPY WITH A*01 RESTRICTED PEPTIDES AND COMBINATION OF PEPTIDES AGAINST CANCERS AND RELATED METHODS

US - 20.03.2025

Clasificación Internacional C07K 14/47Nº de solicitud 18955513Solicitante Immatics Biotechnologies GmbHInventor/a Heiko SCHUSTER

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.

42.20250082746CIRCULAR RNA VACCINES AGAINST SARS-COV-2 VARIANTS AND METHODS OF USE THEREOF

US - 13.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18727308Solicitante Peking UniversityInventor/a Wensheng WEI

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.

43.20250093354METHOD FOR HIGH THROUGHPUT PEPTIDE-MHC AFFINITY SCREENING FOR TCR LIGANDS

US - 20.03.2025

Clasificación Internacional G01N 33/569Nº de solicitud 18919930Solicitante Immatics Biotechnologies GmbHInventor/a Andreas MORITZ

The present invention relates to a method for high throughput screening for a TCR-binding peptide ligand/MHC molecule complex, comprising a stabilized peptide-MHC molecule and respective uses of said method. The present invention further relates to polypeptides comprising or consisting of stabilized MHC molecules or peptide binding fragments thereof, pharmaceutical compositions comprising said polypeptides, vaccines comprising said pharmaceutical composition and uses of said vaccine for the manufacturing of a medicament and/or in the prevention of cancer The present invention further relates to nucleic acids encoding said polypeptides and vectors comprising said nucleic acids.

44.WO/2025/051807MULTILAYER NANOPARTICLE

WO - 13.03.2025

Clasificación Internacional A61K 47/64Nº de solicitud PCT/EP2024/074733Solicitante VRIJE UNIVERSITEIT BRUSSELInventor/a AERTS, Joeri

The present invention provides a multilayer nanoparticle comprising: a core, a cationic polymer, and a anionic polymer which are layered one on top of the other, and a nucleic acid-cationic peptide complex. The invention further provides a pharmaceutical composition, including a vaccine composition, comprising the multilayer nanoparticles, uses thereof for administration to a subject and methods for preparing the multilayer nanoparticles.

45.20250090570METHOD FOR PROPHYLAXIS AND ATTENUATION OF COVID19 AND OTHER INFLAMMATORY MICROBIAL ACUTE RESPIRATORY DISEASE SYNDROMES THROUGH MODULATION OF INNATE AND ADAPTIVE IMMUNITY WITH POLY ICLC

US - 20.03.2025

Clasificación Internacional A61K 31/713Nº de solicitud 18445641Solicitante Oncovir, Inc.Inventor/a Andres M. Salazar

The containment of accidental or intentional epidemic disease outbreaks of pathogens to which our populations have limited or no immunity has thus become one of the principal public health challenges of our time. Methods for clinical administration of pharmaceutical compounds for prevention and attenuation of the inflammatory response to microbial diseases, particularly to the use of double stranded ribonucleic acids (dsRNA). Polyriboinosinic-polyribocytidylic acid stabilized with polylysine and carboxymethylcellulose (Poly-ICLC) converts a virus into the equivalent of an attenuated live-microbe vaccine specific to that microbe, so that Poly-ICLC significantly diminishes infectivity if administered appropriately following infection.

46.20250082869NEBULIZER CUP AND USE THEREOF IN NEBULIZATION INHALATION ADMINISTRATION

US - 13.03.2025

Clasificación Internacional A61M 11/00Nº de solicitud 18726062Solicitante CANSINO BIOLOGICS INC.Inventor/a Weixue SI

Disclosed are a nebulization cup and application in nebulized inhalation administration thereof, and especially application in nebulized inhalation administration of a preventive and/or therapeutic drug for a respiratory disease (such as SARS-CoV-2 vaccine). After adding an antistatic agent, the nebulization cup can effectively maintain the stability of drug mist within a certain period of time, with stable particle size, less drug residue in the cup, thus ensuring effective inhalable amount, and the administration operation is simple and convenient, thus the nebulization cup can significantly improve the inoculation efficiency and can be used for large-scale inoculation.

47.WO/2025/054382COCCIDIOIDES ANTIGENS AND METHODS OF THEIR USE

WO - 13.03.2025

Clasificación Internacional A61K 39/00Nº de solicitud PCT/US2024/045468Solicitante BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEMInventor/a HUNG, Chiung-yi

The present invention concerns methods and compositions for treating or preventing fungal infection, particularly infection by a *Coccidioides* species. The invention provides methods and compositions for stimulating an immune response against the fungus. In certain embodiments, the methods and compositions involve a recombinant vaccine.

48.WO/2025/053947SYNTHETIC TRITERPENES COMPOSITION, METHOD OF PRODUCTION AND APPLICATIONS THEREOF

WO - 13.03.2025

Clasificación Internacional A61K 31/01Nº de solicitud PCT/US2024/041411Solicitante AVANTOR PERFORMANCE MATERIALS, LLCInventor/a DEORKAR, Nandkumar

A synthetic triterpene composition such as squalene and methods for producing the composition by novel chemical synthesis routes is claimed. The squalene produced by the synthetic methods covered in this invention formulation is of high purity suitable for use in making vaccine adjuvants, antioxidant formulations, and drug delivery agents.

49.20250082745BACTERIOPHAGE LAMBDA-VACCINE SYSTEM

US - 13.03.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18718766Solicitante The U.S.A., as represented by the Secretary, Department of Health and Human ServicesInventor/a Sankar L. Adhya

Bacteriophage λ are disclosed herein that include a head, a tail, and a lambda genome comprising a nucleic acid sequence encoding a fusion protein comprising a D protein linked to heterologous antigen, wherein the nucleic acid sequence is inserted into a native gene D locus adjacent to gene E, in the lambda genome, and wherein expression of the fusion protein results in the head of the bacteriophage λ comprising the fusion

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protein. Host bacterial cells also disclosed herein that are infected with the bacteriophage λ. In addition, immunogenic compositions are disclosed that include an effective amount of the bacteriophage λ. Methods also are disclosed for inducing an immune response to the heterologous antigen in a subject. Furthermore, methods are disclosed for preparing these bacteriophage λ.

50.20250093352USE OF AMINO ACID SEQUENCES FROM MYCOBACTERIUM TUBERCULOSIS OR CORRESPONDING NUCLEIC ACIDS FOR DIAGNOSIS AND PREVENTION OF TUBERCULAR INFECTION, DIAGNOSTIC KIT AND VACCINE THEREFROM

US - 20.03.2025

Clasificación Internacional G01N 33/569Nº de solicitud 18951781Solicitante Cellestis LimitedInventor/a Francesca Mariani

The present invention refers to the use of gene sequences or portions thereof characterized in that the same belong to the classes of in vitro and ex vivo induced, repressed or conserved genes in *Mycobacterium tuberculosis* currently infected human macrophages and to corresponding peptides or consensus peptides or proteins for the preparation of specific bio-markers for the diagnosis and prevention of active or latent disease.

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