



EN ESTE NÚMERO

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- El Norovirus y la Reinfeción: Un análisis desde la divulgación y la evidencia científica.
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El Norovirus y la Re infección: Un análisis desde la divulgación y la evidencia científica

El norovirus es una de las principales causas de gastroenteritis aguda en el mundo. Su alta contagiosidad y la creencia popular de que "una vez que te da, ya no te vuelve a dar" son temas de gran interés público. Para abordar esta cuestión, se analizan dos documentos con enfoques radicalmente distintos: un artículo de divulgación de la revista *Prevention* (Miller, 2023) y un artículo original de investigación publicado en el *Journal of Clinical Virology* (Brown et al., 2017). Mientras el primero responde a las dudas del paciente general, el segundo aporta evidencia molecular sobre el comportamiento del virus en pacientes inmunocomprometidos.

La perspectiva de la divulgación: Prevención y conciencia pública

El artículo de Korin Miller (2023), titulado "Can You Get Norovirus Twice? Infectious Disease Experts Explain", aborda la pregunta desde una óptica accesible para el público general. A través de entrevistas con expertos (como los doctores Adalja, Russo y Schaffner), el texto aclara que sí es posible contraer norovirus múltiples veces.

El artículo explica que esto se debe a la existencia de múltiples cepas y a la falta de inmunidad cruzada. Destaca que la inmunidad contra una cepa específica suele durar entre seis meses y dos años, pero no protege contra otras variantes. Además, ofrece consejos prácticos de prevención (lavado de manos, desinfección de superficies) y signos de alarma para acudir al médico, centrándose en el riesgo de deshidratación. También traduce conceptos inmunológicos complejos en recomendaciones de salud pública y autocuidado, enfatizando que, aunque la reinfección es posible, el riesgo de padecerla con la misma frecuencia que un resfriado es menor.

La perspectiva científica: Evidencia genómica en pacientes crónicos

Por otro lado, el artículo de Brown et al. (2017), titulado "*Super-infections and relapses occur in chronic norovirus infections*", representa el rigor de la investigación básica y clínica. Este estudio retrospectivo secuenció los genomas completos de 86 muestras de heces de 25 pacientes pediátricos inmunocomprometidos con infecciones crónicas por norovirus.



Los hallazgos del estudio son fundamentales para entender la dinámica de la infección:

- ◆ Superinfecciones: En pacientes que eliminaban el virus de forma continua (PCR positiva), un 17 % presentó una superinfección (infección por una segunda cepa distinta mientras aún tenían la primera).
- ◆ Reinfecciones y recaídas: En pacientes cuya eliminación viral se interrumpió (PCR negativa temporal), el 67% se reinfectó con un genotipo diferente. Sin embargo, un tercio de estos pacientes sufrió una recaída, es decir, el mismo virus volvió a detectarse a pesar de haber estado hasta dos meses indetectable en heces.
- ◆ Mutación: El estudio demuestra que el virus acumula mutaciones (variantes de un solo nucleótido) a lo largo del tiempo en el huésped.

En este artículo se demuestra que, en pacientes inmunodeprimidos, el norovirus puede persistir de forma "críptica" (indetectable pero presente) y que la coinfección con múltiples cepas es posible, lo que tiene implicaciones directas para el control de infecciones hospitalarias y el riesgo de transmisión.

Ambos enfoques, aunque separados en el tiempo y dirigidos a públicos distintos, se complementan de manera notable:

Sobre la inmunidad: El artículo de divulgación explica por qué podemos enfermarnos varias veces (diferentes cepas). El artículo científico demuestra cómo ocurre esto a nivel genómico, identificando superinfecciones (dos cepas a la vez) y reinfecciones (una cepa nueva tras un periodo de ausencia).

Sobre la persistencia: *Prevention* advierte que la inmunidad dura de 6 meses a 2 años. Brown et al. demuestran que, en personas inmunocomprometidas, el virus puede "escondarse" y reaparecer (recaída) tras dos meses de pruebas negativas, lo que sugiere que la ventana de contagio podría ser más larga de lo que se cree en estos pacientes.

El factor huésped: Mientras la divulgación se centra en la población general (donde la infección suele ser aguda y autolimitada), la investigación se enfoca en pacientes pediátricos inmunocomprometidos, donde la infección se vuelve crónica. Esto resalta que la gravedad y la duración del norovirus dependen en gran medida del estado inmunológico del individuo.

Consideraciones finales

En conjunto ambos artículos ofrecen una visión completa del norovirus. El texto de *Prevention* responde a la pregunta inmediata del ciudadano común: "sí, te puede volver a dar, pero puedes prevenirlo". El estudio de Brown et al. eleva la discusión al ámbito de la virología molecular, revelando que la interacción entre el norovirus y su huésped es mucho más compleja de lo que parece: el virus no solo muta, sino que puede coexistir con otras cepas y "resurgir" en pacientes vulnerables.

Para los profesionales de la salud, la lección es clara: no se debe asumir que un paciente inmunocomprometido que da negativo en una prueba de PCR está curado, y las medidas de aislamiento y vigilancia deben mantenerse más allá de la desaparición de los síntomas agudos. Para el público general, la conclusión es que la higiene de manos y la desinfección siguen siendo las mejores armas contra un virus que, definitivamente, no da tregua.

Fuentes: Miller K. Can You Get Norovirus Twice? Infectious Disease Experts Explain. Disponible <https://n9.cl/o8lyvz>

Brown JR. Super-infections and relapses occur in chronic norovirus infections. Disponible en <https://n9.cl/rwxh2x>

Noticias en la Web

La OMS refuerza su estrategia para detectar amenazas sanitarias en 24 horas de cara a 2030

13 oct. La Organización Mundial de la Salud (OMS) ha impulsado nuevas medidas para mejorar la prevención, la preparación y la respuesta ante futuras pandemias. Entre ellas, ha publicado una nueva estrategia quincenal para su Centro de Inteligencia sobre Pandemias y Epidemias que fija como objetivo que todos los países puedan detectar y comprender las amenazas sanitarias emergentes en las 24 horas posteriores a su aparición para 2030.

Esta iniciativa se suma a la adopción por parte de la Asamblea General de las Naciones Unidas de la Declaración Política sobre Prevención, Preparación y Respuesta ante Pandemias, con la que reclama inversiones sostenidas y una mayor cooperación internacional para reforzar las capacidades de vigilancia y respuesta. Ambos avances buscan mejorar la detección temprana de patógenos y evitar que los brotes se conviertan en epidemias o se propaguen entre países.

El director general de la OMS, Tedros Adhanom Ghebreyesus, ha destacado la importancia de convertir los compromisos políticos en acciones concretas. En este sentido, ha instado a los países a completar las negociaciones sobre el anexo del Sistema de Acceso a Patógenos y Distribución de Beneficios (PABS), un componente clave del Acuerdo sobre Pandemias de la organización.

Cinco iniciativas para mejorar la inteligencia epidemiológica

El Centro de Inteligencia sobre Pandemias y Epidemias de la OMS, creado en 2021 con el apoyo del Gobierno alemán tras las deficiencias evidenciadas durante la pandemia de covid-19, ha colaborado desde entonces con 160 Estados miembros, 190 organizaciones asociadas y miles de científicos y responsables políticos.

La nueva estrategia se basa en cinco iniciativas prioritarias. Entre ellas figura la Inteligencia Epidemiológica de Fuentes Abiertas (EIOS), que utiliza inteligencia artificial para analizar miles de fuentes públicas en tiempo real e identificar señales de posibles amenazas sanitarias. Esta iniciativa cuenta con una comunidad de más de 4.000 expertos y es utilizada por más de 125 Estados miembros y 30 organizaciones regionales e internacionales.

La Red Internacional de Vigilancia de Patógenos (IPSN) busca acelerar el desarrollo de pruebas diagnósticas, tratamientos y vacunas

Otra de las líneas de trabajo es la Red Internacional de Vigilancia de Patógenos (IPSN), centrada en fortalecer la secuenciación genómica y la bioinformática para identificar y comprender nuevos patógenos, así como acelerar el desarrollo de pruebas diagnósticas, tratamientos y vacunas.

A estas iniciativas se suman un laboratorio colaborativo que conecta a más de 2.000 expertos en modelado y ciencia de datos, una red de vigilancia colaborativa implantada en más de 83 países y un nuevo programa para desarrollar sistemas digitales seguros que faciliten el intercambio y análisis de datos y promuevan el uso responsable de la inteligencia artificial.

“El organismo presenta una hoja de ruta con cinco iniciativas prioritarias para mejorar la vigilancia epidemiológica y reforzar la cooperación internacional, mientras la Asamblea General de la ONU adopta una Declaración Política sobre Prevención, Preparación y Respuesta ante Pandemias.”

La ONU pide avanzar en el Acuerdo sobre Pandemias

La Declaración Política adoptada por la Asamblea General de las Naciones Unidas (AGNU) insiste en que la preparación ante pandemias debe abordarse como una cuestión sanitaria, económica, de desarrollo y de seguridad. Para ello, han planteado reforzar los sistemas de vigilancia, invertir en capacidades nacionales y regionales, aplicar el Reglamento Sanitario Internacional enmendado y garantizar una financiación sostenible.

También han subrayado la importancia de facilitar el acceso oportuno a los patógenos y asegurar una

distribución equitativa de los beneficios, así como ampliar la capacidad local y regional de producción, investigación y desarrollo. Estas medidas pretenden favorecer una respuesta más coordinada y equitativa ante futuras emergencias sanitarias.

Uno de los principales asuntos pendientes es la conclusión de las negociaciones sobre el anexo PABS. Su resultado se examinará en la próxima Asamblea Mundial de la Salud, prevista para mayo de 2027, o antes si se convoca una sesión extraordinaria. Su aprobación permitiría avanzar hacia la entrada en vigor del Acuerdo sobre Pandemias de la OMS.

La organización considera que alcanzar los objetivos de su nueva estrategia requerirá inversión continuada, alianzas de confianza y cooperación entre sectores y países. La detección temprana, el intercambio de información y la capacidad de respuesta coordinada constituyen los ejes de este esfuerzo para reducir el impacto de futuras amenazas sanitarias.

Fuente: iSanidad. Disponible en <https://n9.cl/g3emg>



Vaccine redesign may separate Zika protection from risk of worsening dengue

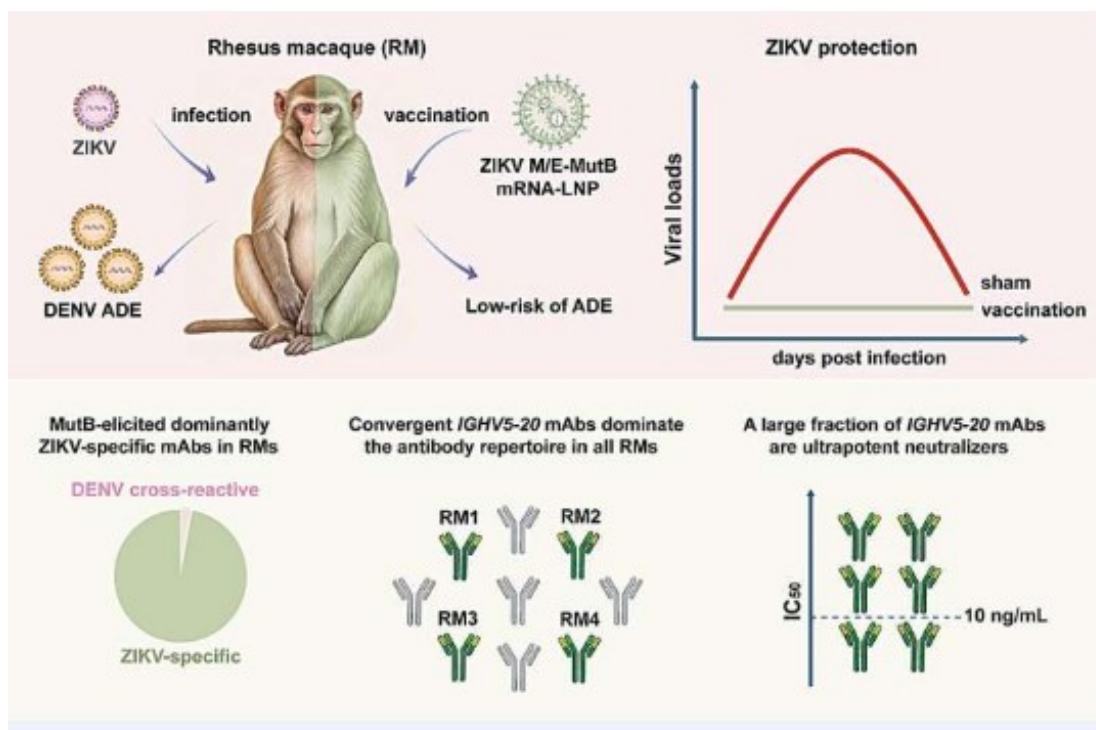
Oct 13. A fusion-loop-engineered vaccine against the Zika virus (ZIKV) has shown promise in a nonhuman primate model. The research was reported in *Cell Reports Medicine* on Oct. 7.

This type of vaccine modifies a region of the viral envelope protein known as the fusion loop to stimulate protective antibodies while reducing the risk of antibody-dependent enhancement (ADE), in which antibodies can worsen infection rather than prevent it. ADE is a major concern in flavivirus vaccine development. These findings lay a foundation for the further clinical evaluation of Zika virus vaccines.

The study was led by professors Dai Lianpan and George F. Gao from the Institute of Microbiology of the Chinese Academy of Sciences (CAS) and Dr. Lu Shuaiyao from the Institute of Medical Biology of the Chinese Academy of Medical Sciences.

ZIKV is a mosquito-borne pathogen that can cause neonatal microcephaly. Currently, there are no licensed vaccines available, and prior ZIKV immunity may increase the risk of ADE, which can exacerbate dengue virus (DENV) infection—representing a major hurdle for vaccine development.

Previously, the research team designed the fusion-loop-engineered immunogen MutB, which achieved maternal–fetal protection while abolishing ADE in murine models. However, given the substantial



The fusion-loop-engineered Zika vaccine achieves protection in macaques and abolishes ADE risk. Credit: Dai Lianpan's Group.

differences between the murine and human immune systems, it was unclear whether fusion-loop-engineered vaccines could elicit the desired immune response in humans.

To investigate the immune response elicited by the vaccine, the researchers analyzed vaccine-induced B cells and found that more than 97% were ZIKV-specific. These cells were dominated by a convergent population using a germline ortholog of human IGHV5-10-1, a gene preferentially recruited during natural ZIKV infection in humans.

Antibodies derived from this population are highly potent and, mechanistically, achieve multistage viral entry blockade. Cryo-electron microscopy analysis revealed that these antibodies target a distinct, vulnerable hotspot on ZIKV. ZIKV specificity is dictated by the epitope residues D67–M68–A69, whereas a homologous DENV N67-linked glycan imposes steric shielding to preclude cross-reactivity. These findings demonstrate that fusion-loop engineering uncouples protective immunity from ADE for safer human flavivirus vaccines.

Fuente: Medical Xpress. Disponible en <https://n9.cl/fuz1aq>

One HPV vaccine dose often sufficient, say WHO advisers

Oct 14. A single dose of the human papillomavirus (HPV) vaccine is now deemed the most efficient immunization strategy for cervical cancer prevention, according to the World Health Organization's (WHO's) Strategic Advisory Group of Experts on Immunization (SAGE).

A persistent HPV infection can lead to multiple types of cancers, including cervical cancer, which is the fifth most diagnosed cancer among women, according to the WHO. Vaccination, however, prevents 90% of these cancers from developing.



Based on new evidence, SAGE recommends that just one dose of the HPV vaccine is typically enough. The advisory group recommends girls aged 9 to 14 years old get the vaccination—though countries may consider administering it to girls as young as age 4, if it's likely to increase coverage.

Also, the single-dose schedule can be extended to people who have yet to be vaccinated: Women who are 25 years of age or younger should be prioritized, followed by women up to 30 years, then boys from 9 through 14 years, and finally males up to 20 years of age.

SAGE says that people who are immunocompromised, including those with well-controlled HIV, should continue to receive two doses of the HPV vaccine. For those who are severely immunocompromised, it recommends three doses.

The WHO last updated its HPV vaccine guidance in 2022, when it said a single dose was an acceptable "alternative schedule" to the two-dose regimen, based on a SAGE recommendation from April that year.

Policy not static, driven by evidence and public health needs

Funding shortfalls and human resource constraints are making evidence-driven vaccine policies "more critical than ever," said Kate O'Brien, MD, director of the WHO's department of immunization, vaccines and biologicals, during Tuesday's press conference in Geneva.

Currently, the global HPV vaccination rate is 33%, and O'Brien said the new recommendations can help the WHO meet its goal of 90%.

Moving to a single HPV dose aligns with the findings from an evidence brief from Johns Hopkins University, which cites multiple studies showing the high efficacy of this simplified regimen.

"These cost savings could potentially stretch immunization budgets further, allowing countries to protect more girls against HPV and cervical cancer," the brief notes. "Additional cost savings may be seen in reduced cold chain requirements, as fewer doses would require countries to purchase fewer refrigerators."

Vaccine policy is not static, said Annelies Wilder-Smith, PhD, SAGE's executive secretary.

"As new evidence emerges, epidemiological patterns evolve, and public health needs change, and therefore our recommendations must evolve accordingly," she said.

New mpox vaccine advice, as well

SAGE also released recommendations for the mpox vaccine, advising that immunization efforts during outbreaks of the virus should target children, people exposed to mpox through sexual networks, and those who have had contact with someone infected. Healthcare professionals and outbreak response workers should also receive it.

Preventive mpox vaccination can be considered for people at high risk for infection or severe disease, SAGE said. This includes people with advanced HIV or other immunocompromising conditions, laboratory personnel working with orthopoxviruses, and healthcare workers at risk of occupational exposure.

Fuente: CIDRAP. Disponible en <https://n9.cl/787xro>

HPV vaccine: What the latest evidence shows and how to report on it

Oct 15. An estimated 50,000 people in the United States are diagnosed with a cancer caused by the human papillomavirus (HPV) every year. Nearly half of these (46%) are cervical cancer, almost all of which is caused by HPV, while the others are anal, head and neck (oropharyngeal), vulvar, vaginal, and penile cancers.



There is now, however, a vaccine available to prevent most of the HPV strains at the highest risk for developing into cancer, meaning the number of new HPV-associated cancers could eventually decline in the future with enough HPV vaccination coverage.

Like many other immunizations, the HPV vaccine has been subject to a substantial amount of misinformation about its effectiveness and particularly its safety. The Vaccine Integrity Project recently conducted a systematic review of the literature to date on the vaccine's safety and effectiveness, and the resulting report is a rich data resource journalists can use in any stories about HPV, the vaccine, or cancers linked to the virus.

Many of those receiving diagnoses of HPV-associated cancers today would not necessarily have been able to prevent those cancers with the vaccine. It takes an estimated 15-20 years for an HPV infection to develop into cancer, and the first vaccine — which prevented only two of the highest-risk HPV strains — was approved in 2006, exactly 20 years ago, and only for females ages 9-26. The vaccine's indication was eventually expanded to males up to age 26 and is now routinely recommended by the CDC and the American Academy of Pediatrics for all youth ages 9-14.

Since the first approval in 2006, an updated vaccine that protects against an additional seven high-risk strains (in addition to two low-risk strains that cause 90% of genital warts cases) has been approved, and anyone up to age 45 can receive it. As the only vaccine explicitly and successfully developed to prevent cancer, it's important that journalists have access to the most up-to-date information on the shot's safety and effectiveness. More than 90% of cervical cancer cases are caused by HPV, and it's estimated to be responsible for 75% of vaginal cancer, 69% of vulvar cancer, 63% of penile cancer, 91% of anal cancer, and 70% of oropharyngeal cancer.

Vaccine Integrity Project evidence review of HPV vaccine

The new report is a systematic review and meta-analysis of the HPV vaccine's safety and effectiveness conducted by the Vaccine Integrity Project with funding from the Rockefeller Foundation and additional support from the Alumbra Foundation to the Center for Infectious Disease Research and Policy (CIDRAP) at the University of Minnesota, where the Vaccine Integrity Project was founded. (Other funders of the project can be found [here](#).) This document pulls together all peer-reviewed literature on the vaccine from September 2024 to January 2026, which the authors then combined with the results of two previous Cochrane reviews of studies through September 2024.

Together, the new report covers the full breadth of peer-reviewed literature on HPV vaccines since their inception, including results from 274 studies on safety, effectiveness, and immunogenicity. It covers the original quadrivalent vaccine (Gardasil), the bivalent vaccine that was discontinued due to market pressure (Cervarix), and the current 9-valent vaccine (Gardasil 9). The types of trials included are randomized controlled trials, cohort studies, ecological studies, case-control studies and immunogenicity analyses.

The populations studied are predominantly male and female adolescents, but several studies also include women ages 20-45 and pregnant women.

The report included the following safety outcomes: overall safety and adverse events, adverse pregnancy outcomes, Guillain-Barré syndrome (GBS), postural orthostatic tachycardia syndrome (POTS), chronic fatigue syndrome/myalgic encephalomyelitis (CFS/ME), paralysis, complex regional pain syndrome (CRPS), premature ovarian failure and infertility. Researchers studied several of these outcomes specifically because misinformation inaccurately linked them to the vaccine. The parts of the report addressing POTS, CFS/ME, infertility and premature ovarian failure are particularly helpful for journalists writing about the unsupported claims related to these conditions and the vaccine.

Effectiveness outcomes studied include all HPV-associated cancers, though especially cervical cancer, as well as new HPV infections, HPV infection with HPV16 and HPV18 — the two high-risk strains responsible for most cervical cancer — and high-grade intraepithelial neoplasia, which are the precancerous cells that develop into cancer if not addressed, in the five genital and anal cancers. The two immunogenicity outcomes are seroconversion and antibody neutralization titers, neither of which was in the Cochrane reviews, so that data comes only from September 2024 to January 2026.

Fuente: AHCJ Association of Health Care Journalist. Disponible en <https://n9.cl/5wnsv>

PharmaJet Highlights Vaccine Development Opportunities and Real-World Impact with Needle-Free Delivery at World Vaccine Congress Europe

Oct 15. PharmaJet®, a global leader in needle-free injection technology, participated in a pre-conference panel at the World Vaccine Congress Europe. Entitled *From Non-Inferiority to Impact: Accelerating Adoption of Needle-Free Vaccine Delivery*, the panel included Paul LaBarre, Senior Vice President of Global Business Development, PharmaJet, as well as executives from Scancell Ltd, LTS Lohmann Therapie-Systeme AG, Osaka University, and the European Medicines Agency. The panel members discussed perceived obstacles to the adoption of needle-free delivery and share examples from recent clinical and commercial experience that challenge these perceptions.



PharmaJet is a commercial-stage world leader in needle-free injection systems that are being used for infectious disease, oncology and autoimmune disease indications. To date, more than 20 million polio vaccine injections have been administered worldwide using its Tropis® Needle-free Intradermal System.

Published research comparing Tropis with needle and syringe shows it is preferred by over 95% of caregivers,^{1,2} and recipients reported reduced pain and soreness.³ In addition, PharmaJet needle-free technology has been successfully adopted into multiple DNA cancer vaccine development programs and has been shown to be safe and well tolerated,^{4,5,6} while vaccine delivery with PharmaJet Systems induced robust immune responses associated with favorable clinical outcomes for both personalized and off-the-shelf immunotherapies.^{7,8,9}

“Needle-free delivery has reached a level of clinical experience and commercial scale that makes it an increasingly relevant option for vaccine and therapeutic development,” noted Paul LaBarre, Senior Vice President, Global Business Development, PharmaJet. “Evaluating our commercialized needle-free technology earlier in clinical development allows pharmaceutical companies to incorporate delivery into their regulatory and commercial strategies from the outset.”

Fuente: BioSpace. Disponible en <https://n9.cl/3rrc3j>

VAX-31 Meets All Primary End Points vs PCV20 and PCV21 in Pivotal Phase 3 OPUS-1 Trial

Oct 16. The investigational 31-valent pneumococcal conjugate vaccine (PCV) candidate VAX-31 (Vaxcyte) met all prespecified primary immunogenicity and safety end points in the pivotal phase 3 OPUS-1 trial (NCT07284654), according to topline results the company announced on October 5, 2026. The results are expected to anchor a planned biologics license application (BLA) to the FDA.



Trial Compared VAX-31 With Both Leading Adult PCVs

OPUS-1 is a randomized, double-blind, active-controlled trial that enrolled 4047 participants at approximately 30 US sites.

Healthy, pneumococcal-naïve adults 50 years and older ($n = 3572$) were randomly assigned 1:1:1 to a single dose of VAX-31, 20-valent PCV (PCV20; Prevnar 20; Pfizer), or 21-valent PCV (PCV21; Capvaxie; Merck). A separate cohort of adults aged 18 to 49 years ($n = 475$) was randomly assigned 3:1 to VAX-31 or PCV20. Immune responses were measured 1 month after vaccination, and safety is being followed for 6 months.

Noninferiority Met Across All Shared Serotypes

Among adults 50 years and older, all 28 serotypes of VAX-31 shared with PCV20 and/or PCV21 met the prespecified noninferiority criterion, which was defined as a lower bound of the 95% CI (LBCI) for the opsonophagocytic activity geometric mean ratio exceeding 0.667—a threshold more stringent than the historical margin of 0.5. The 3 serotypes unique to VAX-31, along with cross-reactive serotype 20B, met the superiority criterion ($LBCI > 2.0$).

In the immunobridging analysis, VAX-31 met noninferiority for all 32 serotype comparisons in adults aged 18 to 49 years vs those aged 50 to 64 years.

In head-to-head comparator analyses, VAX-31 met the 0.667 criterion for all 20 serotypes shared with PCV20, as well as 17 of 19 shared with PCV21.

Serotypes 3 and 12F fell short of 0.667 against PCV21 but met the historical 0.5 threshold, which was a prespecified key secondary end point. James Wassil, MS, MBA, executive vice president, chief scientific officer, and chief operating officer of Vaxcyte, said the company expects the PCV21 comparison to be a particular focus of FDA review, given that serotypes unique to PCV21 account for a larger share of current US adult disease.

Safety Comparable to Licensed Vaccines

VAX-31 was well tolerated, with a safety profile similar to those of PCV20 and PCV21 across all age groups. Solicited reactions were generally mild to moderate, and most resolved within 48 hours. No serious adverse events (AEs) were considered vaccine related, and no participants discontinued because of AEs.

Expanded Adult Recommendations Raise the Stakes

The results arrive as more adults become eligible for pneumococcal vaccination. On October 23, 2024, the CDC's Advisory Committee on Immunization Practices recommended a single PCV dose for all PCV-naïve adults 50 years and older, aiming to improve prevention in adults aged 50 to 64 years, particularly among demographic groups with higher disease rates. Current CDC guidance lists PCV15, PCV20, or PCV21 for this population, and individuals who receive PCV20 or PCV21 are considered to have completed their pneumococcal vaccination.

Serotype coverage remains a key differentiator. A 2025 modeling analysis in *The Journal of Infectious Diseases* found that coverage and preventable disease burden were lowest for PCV15 and highest for a 31-valent candidate, with PCV21 also targeting a sizable share of adult disease. Vaxcyte estimates VAX-31 could cover approximately 95% of invasive pneumococcal disease (IPD) and 88% of pneumococcal pneumonia in US adults 50 years and older—an incremental coverage of 13% to 36% and 19% to 31%, respectively, over current adult PCVs.

“Important gaps remain in adult pneumococcal disease coverage,” Luis Jodar, PhD, chief medical officer of Vaxcyte, said in the news release announcing the trial data. Pneumococcal pneumonia alone causes an estimated 225,000 adult hospitalizations in the US annually.

Next Steps Toward Licensure

Vaxcyte expects to report results from the OPUS-2 (NCT07365826) and OPUS-3 phase 3 trials in the first half of 2027, followed by a manufacturing consistency study, with a BLA submission planned for the first half of 2028. The FDA previously granted VAX-31 breakthrough therapy designation for IPD prevention, expanding in May 2025 to include pneumococcal pneumonia.

VAX-31 remains investigational, and until a new product is licensed and recommended, pharmacists should continue to follow current CDC guidance.

Fuente: PHARMACY TIMES. Disponible en <https://n9.cl/nghqm>

Researchers Target Viral Fusion for Universal Flu, HIV Vaccines

Oct 16. Michigan State University (MSU) researchers have received a new grant from the National Institutes of Health (NIH) to study viral fusion, a mechanism shared by influenza and HIV, with the goal of informing the development of broadly protective vaccines and new antiviral therapies for both diseases. The project is led by David Weliky, PhD, a professor in MSU's Department of Chemistry, and focuses on the molecular machinery that allows a virus to merge its membrane with a host cell and deliver its genetic material inside.



Current Vaccines Leave Gaps in Protection

Seasonal influenza vaccines must be updated every year because the virus mutates rapidly, limiting how long a single dose can protect individuals. The 2025-2026 season underscored the stakes: preliminary CDC estimates indicate at least 32 million illnesses, 390,000 hospitalizations, and 24,000 deaths, and the agency classified the season as moderately severe.

HIV, meanwhile, still has no effective vaccine. According to UNAIDS, approximately 41.0 million individuals worldwide were living with HIV in 2025, with 1.2 million new infections and 570,000 deaths from AIDS-related illnesses that year. About 5.0 million individuals living with HIV did not know their status.

Targeting a Conserved Viral Engine

Viral fusion occurs when the membranes of a virus and a host cell join together, allowing the virus' genetic cargo to enter the cell and begin replicating. Because this machinery is essential to viral function, it changes very little between strains, which the investigators liken to the same engine appearing across many makes and models of vehicles.

That stability is what makes fusion an appealing target. A vaccine capable of halting the shared machinery could, in theory, protect against multiple influenza subtypes for several years, even as the virus continues to mutate. The same principle could support a broadly effective HIV vaccine that targets fusion across many separate strains.

In influenza, fusion is carried out by subunit 2 of the hemagglutinin protein (HA2); in HIV, it is driven by the gp41 envelope glycoprotein. Both proteins contain an N-terminal fusion peptide that binds the target cell membrane and is considered critical to the fusion process. Weliky's laboratory has previously used nuclear magnetic resonance (NMR) spectroscopy to examine how these fusion peptides from both viruses interact with and alter lipid membranes.

Mapping Fusion at the Atomic Level

The research relies on NMR, an analytical technique that uses a strong magnet and radio waves to reveal the structure and motion of atoms. Using instruments in MSU's Max T. Rogers NMR Core, the team plans to build a step-by-step picture of how influenza and HIV proteins change shape during fusion, along with the corresponding changes in the host cell membrane.

Weliky said the funding is essential for his group to "develop an integrated model of viral fusion" and to collect new data to test that model.

Tahmina Khatun, a graduate student in the Weliky group, framed the central question the project aims to answer: "Which forms of these viral proteins actually drive each stage of membrane fusion?"

Implications Beyond Influenza and HIV

Because influenza and HIV are genetically unrelated, identifying fusion traits the 2 viruses share may also inform research on the broader family of viruses that rely on fusion to spread. These include coronaviruses and the viruses responsible for rubella, measles, yellow fever, and Ebola disease.

Khatun noted that a clearer understanding of fusion could point to new ways of interrupting infection, including vaccines and antiviral drugs designed to block a virus before it ever enters a cell.

What This Means for Pharmacists

The project remains at the basic science stage, and the announcement does not describe a specific vaccine candidate or a clinical timeline. Still, the work reflects a broader shift in vaccine research away from strain-matched formulations and toward conserved viral targets that could reduce the need for annual reformulation.

Until such options exist, strain-specific seasonal influenza vaccines remain the primary tool for preventing influenza-related illness, hospitalization, and death, and pharmacists will continue to play a central role in administering them ahead of each season. For HIV, pharmacists remain key access points for testing, pre-exposure prophylaxis, and antiretroviral therapy support while vaccine research continues.

Fuente: PHARMACY TIMES. Disponible en <https://n9.cl/nghqm>

Quality by Design: The Blueprint for Faster, Safer Pandemic Drug Development

Oct 17. When the next pandemic arrives, the world will not have the luxury of years to develop vaccines and therapeutics. The COVID-19 crisis, the Zika epidemic in Brazil, and the Ebola outbreak in West Africa all exposed a hard truth: the conventional pharmaceutical development process, built around slow, sequential phases from discovery to regulatory approval, is simply too fragile for global health emergencies. A new mini review published in the Journal of Pharmacy & Pharmaceutical Sciences argues that a well-established industrial philosophy known as Quality by Design, or QbD, could be repurposed as a Pandemic-Ready Development Framework, systematically engineering quality, speed, and regulatory flexibility into drug and vaccine development before the next crisis strikes.



QbD is formally defined by the International Council for Harmonization's Q8(R2) guideline as a systematic approach to development that begins with predefined objectives and emphasizes product

and process understanding and process control, based on sound science and quality risk management. The core idea represents a fundamental shift in thinking: rather than testing quality into a finished product at the end of the line, quality is designed into the product and its manufacturing process from the very start. The framework rests on six interrelated pillars, including the identification of critical quality attributes (CQAs) and critical process parameters (CPPs), the construction of a design space (DS) within which product quality is guaranteed, and continuous improvement throughout the product lifecycle. The overall motto, the authors note, is to make correct, quick, and precise decisions, which makes the method strikingly relevant for emergency preparedness.

The regulatory foundation for this approach has been steadily built over two decades. ICH Q8 introduced the concept of the design space, ICH Q9 established the framework for quality risk management, and ICH Q10 and Q11 strengthened the pharmaceutical quality system and the development of drug substances. More recent guidelines, including ICH Q12, Q13, and Q14, extend this architecture to support advanced manufacturing and modern analytical techniques. Together, these harmonized guidelines mark an inclusive shift toward proactive, science-based quality assurance, replacing the old paradigm of end-point testing with a flexible, knowledge-driven system that regulators themselves now endorse.

Why does this matter so much during a pandemic? The traditional development pathway is essentially a fixed procedure: any divergence from the validated process demands a new validation cycle, and there is a high chance of rejected batches if products fail final specifications. Understanding of how many factors interact is often vague and empirical. QbD flips this model. By mapping a design space through systematic experimentation, the approach provides a science-backed operating range within which changes require minimal regulatory adherence. Risk assessment tools such as Failure Mode and Effects Analysis (FMEA) allow early detection and handling of hazards during product development, while real-time monitoring through Process Analytical Technology (PAT) ensures that critical quality attributes remain within acceptable limits. This reduces batch failures, minimizes variability between batches, and streamlines regulatory acceptance, making rapid commercialization possible even when minor formulation adjustments are required mid-crisis.

The evidence for this potential is already substantial. A study by van de Berg and colleagues applied a QbD-based framework to the rapid development of an RNA vaccine against emerging infectious diseases. Using mechanistic bioprocess modeling, the team established a robust design space and achieved RNA yields above 4.34 grams per liter with improved consistency and minimal variability. The approach enabled rapid process optimization and improved production volume while maintaining quality standards, demonstrating exactly the kind of accelerated scale-up capability that pandemic conditions demand. The authors of the new review cite this work as a signpost for what a pandemic-ready framework could look like in practice.

QbD's analytical counterpart, Analytical Quality by Design (AQbD), addresses a critical but often overlooked bottleneck: testing. Rapid development of vaccines and therapeutics is meaningless without validated analytical methods to assess them, and traditional analytical method development is time-consuming and inconsistent. AQbD begins by defining an Analytical Target Profile (ATP), a summary of the desired performance characteristics of an analytical procedure. Based on this baseline, a Method Operable Design Region (MODR) is identified using Design of Experiments (DoE) and risk assessment tools. Within the MODR, analytical performance reliably meets the ATP criteria.

This systematic approach improves method robustness, minimizes variability, and speeds up analytical development, ensuring accurate testing even under accelerated timelines.

Recent studies underscore AQbD's growing maturity. A review by Rajendra Kotadiya examined around 52 research studies published between 2014 and 2025, summarizing how the framework improves method ruggedness, reduces method transfer failure, and lowers the risk of out-of-specification results. Separately, Nuli MV and colleagues applied AQbD to chromatographic method optimization, establishing a stable reverse-phase UPLC technique for analyzing the cancer immunotherapy drugs nivolumab and relatlimab while reducing development time. The ICH Q14 guideline now provides a formal regulatory framework for analytical procedure development using risk-based approaches, further smoothing the path between industry and regulatory agencies during emergencies where rapid development is desirable.

The review also catalogs how QbD principles have been successfully applied across a range of pandemic-relevant formulation platforms. DoE-based optimization of lipid nanoparticles for RNA delivery enabled rapid formulation optimization and scalable vaccine manufacturing. Bayesian optimization techniques doubled mRNA vaccine production cost-effectively. A QbD framework applied to mRNA platform purification achieved more than 90 percent mRNA recovery, greater than 99 percent purity, and a 15 percent cost reduction compared to conventional methods. QbD-driven development of polymeric nanoparticles of cinacalcet hydrochloride produced sustained drug release with pharmacokinetic parameters increased roughly threefold. Even mucoadhesive minitables of the antibiotic cefuroxime axetil, optimized through Box-Behnken design, showed improved bioavailability and precise control over drug release. Modern statistical software packages, including Design Expert, Fusion Product Development, and Minitab, are increasingly used to implement these approaches in pharmaceutical and biotech research and development labs.

Yet the path to a true Pandemic-Ready Development Framework is not without obstacles. The biggest drawback of QbD adoption is the need for full knowledge of critical material attributes and critical process parameters, which is not time-constrained; mapping a design space might delay life-saving therapies during an active pandemic, especially when fast-turnover variants alter the needed effectiveness criteria and force a restart. Regulatory organizations such as the FDA and EMA are supportive of QbD, but legal frameworks associated with Emergency Use Authorizations are generally centered on conventional fixed-process validation rather than flexible design-space validation, leaving companies uncertain about how much QbD data is enough for an emergency submission. QbD also requires greater capital expenditure upfront, new skill sets in multivariate data analysis and statistical modeling that some organizations consider out of reach, and equipment and data-management systems for real-time monitoring that many firms lack. The authors argue, however, that QbD works as a financial insurance policy against the catastrophic costs of manufacturing failures and regulatory delays.

Despite these challenges, the review concludes that QbD and AQbD represent a very promising framework for future pandemics, shifting development from traditional testing to a proactive, knowledge-based approach grounded in risk assessment, design space establishment, and lifecycle management. The authors call for greater collaboration among academics, industry, and regulatory bodies to standardize the framework, noting that QbD remains under-adopted in academic research and that regulatory requirements lack harmonization across the world.

Future applications in nanoformulations and vaccine development, they argue, will help establish the approach as a genuine Pandemic-Ready Development Framework, one where saving time is equivalent to saving lives.

Fuente: Bioengineer.org. Disponible en <https://n9.cl/qyd37>

Egypt, Pfizer explore local production of pneumococcal vaccine

Oct 18. Abdel Ghaffar met with a Pfizer delegation led by Rodrigo Luis Puga, the company's regional president for the Middle East, Russia, and Africa, according to a Health Ministry statement.

Ministry spokesperson Hossam Abdel Ghaffar said the two sides explored ways to produce the vaccine locally to support Egypt's national immunization programme, meet domestic demand for childhood vaccinations, and facilitate the transfer of medical technology.

The discussions also covered cooperation on presidential health initiatives, particularly the women's health initiative and early cancer detection.

Both sides reviewed existing programmes involving innovative treatments, psychological support, and medical training, including a postgraduate diploma specializing in breast cancer.

The ministry said local vaccine production would include technology transfer and training to build Egyptian expertise and technical capacity.

Localization will also help secure supply chains and strengthen the healthcare system.

The plans align with Egypt's Vision 2030 goals for domestic production of essential vaccines.

Moreover, the meeting addressed cooperation on scientific research and clinical trials, including precision medicine and treatments for sickle cell disease and haemophilia.

The spokesperson said the two sides discussed providing comprehensive haemophilia treatments at competitive prices.

They also discussed efforts to combat antimicrobial resistance, develop research centres, advance diagnostic services, and enhance precision medicine capabilities.

Pfizer representatives praised the development in Egypt's healthcare sector and reaffirmed the company's commitment to working with the government to support its health priorities and improve public health.

Fuente: AHARAM ONLINE. Disponible en <https://n9.cl/tbn4q>

Nearly 40,000 doses of meningococcal vaccine have been administered as demand for prevention surges

Oct 19. According to information released by the Pasteur Institute of Ho Chi Minh City on October 19th, in the first 10 months of 2026, the southern region recorded 42 cases of meningococcal disease, including 7 deaths. Ho Chi Minh City accounted for over 57% of the region's cases; the 11-15 age group had the highest proportion at 28.6%.

Notably, three outbreaks have been recorded in schools and communal living facilities in An Giang, Ca Mau, and Ho Chi Minh City. The latest cluster of four cases occurred at a junior high school in Ho Chi Minh City, in which a 12-year-old student died due to rapidly progressing illness, causing septic shock and multiple organ failure.

In response to this situation, the demand for meningococcal meningitis vaccines has increased sharply. According to the VNVC Vaccination System, in just 4 days, nearly 300 centers nationwide administered nearly 40,000 meningococcal vaccine doses, a threefold increase compared to the same period last year. Nearly 80 centers in Ho Chi Minh City alone recorded almost 15,000 doses, 125 times more than the same period last year.

To meet demand, VNVC has coordinated vaccine supplies, mobilized more than 12,000 doctors, nurses, and staff across the system, and increased service throughout lunchtime to reduce waiting times while maintaining safe



vaccination procedures. The system is committed to not increasing vaccine prices when demand is high and implementing preferential policies to support people's access to vaccination.

According to Dr. Bach Thi Chinh, Medical Director of the VNVC Vaccination System, children accounted for approximately 70% of meningococcal vaccine injections during this period. Many families brought 5-7 members at a time, ranging from young children and teenagers to adults and the elderly, for consultation and vaccination.

At VNVC Truong Chinh (Hanoi), Mr. Thanh Trung brought his two children to get vaccinated against meningococcal group B and ACYW, and also got vaccinated himself. He plans to bring his parents, currently 70 and 75 years old, for vaccination consultation as both are being treated for chronic diseases such as hypertension, diabetes, and arthritis.

According to Dr. Bach Thi Chinh, meningococcal disease is caused by several serotypes, with the five most common being A, B, C, Y, and W. In Vietnam, besides serotype B, cases caused by other serotypes have also been recorded. In February 2025, a 24-year-old man died from fulminant meningococcal septic shock, with the causative agent identified as belonging to serotype W.

Currently, VNVC offers vaccines against five serotypes: A, B, C, Y, and W, including vaccines against serotype B, ACYW, and B and C. The recommended age and vaccination schedule vary depending on the type of vaccine.

Dr. Chinh noted that individuals who have previously received the meningococcal BC vaccine still need to be advised about supplementing with the Group B and ACYW vaccines due to differences in composition and scope of protection. The Group B and ACYW vaccines can be administered in the same session at two different sites as indicated.

Fuente: VIETNAM.VN. Disponible en <https://n9.cl/rwxjv>

Tamil Nadu To Study Qdenga Dengue Vaccine Effectiveness In Town With Heavy Burden

Oct 19. India's fight against dengue may be entering a new phase, with Tamil Nadu launching a pilot initiative to assess the effectiveness of a dengue vaccine in Kadayanallur, a town in Tenkasi district that has experienced a significant burden of the mosquito-borne disease. The initiative focuses on Qdenga, a vaccine developed by Japanese pharmaceutical company Takeda, and could help inform decisions about whether dengue vaccination should be expanded to other parts of the country.

"Tamil Nadu has launched a pilot initiative in Kadayanallur to assess the effectiveness of Qdenga, a dengue vaccine developed by Takeda. The study will help inform wider vaccination plans, while experts stress that mosquito control remains essential."

According to reports, Tamil Nadu Health Minister K.G. Arunraj announced the initiative on October 17, 2026. The state has partnered with the Indian Council of Medical Research's National Institute of Epidemiology to study the vaccine's impact, with the findings expected to guide future public health decisions.

The development comes as dengue continues to pose a seasonal public health challenge across India, particularly during and after the monsoon, when mosquito breeding conditions become favourable. Although the Qdenga vaccine offers a potential additional tool for prevention, its effectiveness, safety, target population and suitability for different epidemiological settings need careful assessment. The World Health Organization (WHO) recommends dengue vaccination only in specific high-transmission settings and age groups, alongside mosquito control and appropriate clinical care.

Tamil Nadu Launches Dengue Vaccine Pilot In Kadayanallur

Tamil Nadu has selected Kadayanallur for the pilot initiative because the area has experienced substantial dengue infections and deaths in previous years, according to statements attributed to Health Minister K.G. Arunraj in news reports.

The state government aims to assess the vaccine's effectiveness in a setting where dengue represents a significant public health concern. Scientists associated with the ICMR's National Institute of Epidemiology are expected to study the vaccine's impact, with the results helping authorities evaluate the feasibility of wider implementation.

The initiative is significant because introducing a vaccine into a public health programme requires more than establishing that it can prevent infection. Authorities also need evidence on how well it performs under local conditions, which population groups are most likely to benefit, how long protection lasts and whether the programme can be implemented safely and equitably.

According to reports, the state plans to consider expansion to other areas after assessing the findings from Kadayanallur. The reported announcement marks an important step towards evaluating dengue vaccination as an additional public health intervention in India.

What Is Qdenga, The Dengue Vaccine?

Qdenga, also known as TAK-003, is a live-attenuated dengue vaccine developed by Takeda. It contains weakened versions of the dengue virus and is designed to protect against all four dengue virus serotypes: DENV-1, DENV-2, DENV-3 and DENV-4.

Dengue is caused by four closely related virus serotypes, transmitted primarily through the bite of

infected Aedes mosquitoes. Infection with one serotype does not provide complete protection against the others. A subsequent infection with a different serotype can increase the risk of severe dengue in some people.

According to the WHO, Qdenga received WHO prequalification in May 2024. The WHO recommends its use in children aged six to 16 years in settings with high dengue burden and transmission intensity. The recommended schedule consists of two doses administered three months apart.

The vaccine does not prevent every dengue infection, and protection can vary according to factors such as the infecting serotype and whether an individual has previously been exposed to the virus.

The minister's announcement reportedly stated that India's Central Drugs Standard Control Organisation had approved the vaccine for use in people aged four to 60 years. However, regulatory approval and WHO recommendations for public health programmes are not interchangeable. Eligibility, contraindications and the appropriate vaccination strategy must be determined in accordance with current Indian regulatory guidance and clinical advice.

How Effective Is The Dengue Vaccine?

The Tamil Nadu initiative is intended to generate evidence about the vaccine's performance in the local population. The minister has cited estimates of 80% protection following the two-dose schedule. Such figures should not be interpreted as a guarantee that every vaccinated person will be protected against dengue.

The WHO's assessment of Qdenga takes into account differences in vaccine performance across age groups, dengue serotypes and previous exposure to the virus. Its recommendations are specifically directed at children aged six to 16 years living in areas with high dengue transmission intensity.

The WHO does not recommend routine programmatic use in children younger than six years, partly because of lower observed efficacy in this age group. It has also highlighted evidence gaps concerning protection against certain serotypes in people who have never previously been infected.

These distinctions are important for India, where dengue transmission varies considerably between states, districts and communities. Findings from Kadayannallur could contribute to understanding how vaccination performs in a high-burden setting, but they would need to be interpreted alongside broader clinical evidence, safety monitoring and the population selected for vaccination.

Why Dengue Prevention Remains Important In India

Dengue can cause high fever, headache, muscle and joint pain, nausea and rash. In some patients, the illness can progress to severe dengue, involving plasma leakage, bleeding, shock or organ impairment. Warning signs may emerge as the fever begins to subside, making timely medical assessment important.

India faces recurring dengue outbreaks, with the intensity and timing of transmission influenced by rainfall, temperature, urbanisation, water storage practices and inadequate drainage. Stagnant water



in containers, discarded tyres, flowerpots and other household or neighbourhood receptacles can provide breeding sites for *Aedes* mosquitoes.

The consequences extend beyond individual illness. Outbreaks can place pressure on hospitals, increase household healthcare expenses and affect school and workplace attendance. Families may also face difficulties accessing timely diagnosis and treatment during periods of high transmission.

A vaccine could provide an additional layer of protection, particularly in areas where dengue transmission is intense. However, vaccination cannot replace environmental measures or prompt clinical care.

Fuente: NDTV LIFE LINE. Disponible en <https://n9.cl/owuis4>

New TB vaccines are coming. How are countries preparing for the rollout?

Oct 20. Tuberculosis (TB) remains the world's deadliest infectious disease, claiming about 1.2 million lives per year.

The BCG vaccine has played an important role in protecting children against severe forms of TB for over a century. Now, novel tuberculosis vaccines that aim to protect adults and adolescents are on the horizon, with promising candidates entering the final stages of clinical trials.

These new vaccines have huge potential. Preliminary modelling from the London School of Hygiene and Tropical Medicine estimates that they could help to save 7.3 million lives, generate up to US\$ 135 billion in economic benefits and support efforts to combat antimicrobial resistance.

One candidate, the M72/AS01E vaccine recently impressed in preliminary efficacy trials. If that vaccine continues to perform well in larger clinical studies, it could be introduced into immunisation programmes as soon as 2029–2030.

A new, effective TB vaccine could be a transformative public health intervention and may represent the most sustainable long-term strategy for reducing TB disease and mortality.



The BCG vaccine has been protecting infants from tuberculosis for a century, but forthcoming next-generation vaccines should shield adolescents and adults from TB infection. Adriana Borra/2024

- Dr Benjamin Kagina, Associate Professor at the University of Cape Town and Principal Investigator (PI) of the TIMBER research team

In anticipation of these game-changer new-generation jabs, South Africa, Kenya and The Gambia have stepped up to be part of a research project designed to help generate evidence to inform roll-out plans and support the decision-making led by National Immunisation Technical Advisory Groups (NITAGs) in Africa.

The project, called the Tuberculosis Integrated Model-Based Evidence and Recommendations (TIMBER) study, was launched in August 2025 and will last 36 months. It is led by the Vaccines for Africa Initiative (VACFA) at the University of Cape Town (UCT) and funded by the Wellcome Trust.

VaccinesWork reached out to Dr Benjamin Kagina and Dr Waasila Jassat, two key experts working on TIMBER in South Africa, to learn more.

Why new TB vaccines?

“For more than a century, TB prevention has relied primarily on the Bacille Calmette–Guérin (BCG) vaccine,” explained vaccinologist Dr Benjamin Kagina, Associate Professor at the University of Cape Town and Principal Investigator (PI) of the TIMBER research team.

“Although BCG protects against severe forms of TB in infants and young children, its effectiveness against pulmonary TB in adolescents and adults is limited.”

Modelling studies suggest that targeting adolescents and adults could produce substantial public health benefits, he said. But those demographics come with their own challenges: many African countries have limited or no established immunisation delivery platforms for these age-groups.

“The introduction of an effective new TB vaccine would require African National Immunisation Technical Advisory Groups (NITAGs) to develop timely, evidence-informed recommendations on its use and implementation,” Kagina explained. That’s where TIMBER comes in.

What will TIMBER do?

“When you make a policy recommendation for a new vaccine, you need evidence to map out why the vaccine needs to be introduced. Will it reduce disease? Will it be safe, will it be easy to implement, will it save the Department of Health money? TIMBER will help us identify all the evidence we need, so we can synthesise and package it and produce a policy document for the Department of Health,” said Dr Waasila Jassat, who serves as the Chair of the TB Vaccine Working Group of South Africa’s National Advisory Group on Immunisation (NAGI).

When the time comes, that evidence will be an important part of accessing funding for deployment from the National Treasury, Jassat explained. It may also inform prioritisation: people who are at greater risk may need first access to the new generation vaccines. In South Africa, mining communities, health workers and HIV-infected people are likely to number among them – but more evidence is required.

How will the research help governments?

“Mathematical modelling can provide valuable evidence to support NITAGs and policymakers in assessing the potential health impact, resource requirements and feasible implementation strategies associated with introducing a new TB vaccine,” Dr Kagina said.

Fuente: Gavi. Disponible en <https://n9.cl/2spe7>

CEPI and World Bank Group partner to strengthen sustainable vaccine manufacturing in ASEAN

Oct 21. The Coalition for Epidemic Preparedness Innovations (CEPI) and the World Bank Group (WBG), together with Asian Venture Philanthropy Network (AVPN) and others, have launched a partnership to strengthen vaccine manufacturing across ASEAN, supporting the ASEAN Vaccine Security and Self-Reliance Initiative (AVSSR).



The partnership—which is aligned with the objectives of the AVSSR, led by the National Vaccine Institute (NVI) of Thailand, and is supported by the Regionalized Vaccine Manufacturing Collaborative (RVMC) and partners, aims to expand regional manufacturing, strengthen supply chains, and improve access to vaccines for routine immunisation and future outbreaks.

ASEAN countries import the majority of the vaccines they need, leaving the region vulnerable to global supply disruptions, particularly during outbreaks. Expanding regional manufacturing can help ensure more reliable access to both routine and outbreak vaccines, enhance pandemic preparedness, reduce costs over time, and create skilled jobs.

To the partnership CEPI brings expertise in outbreak vaccines, platform readiness, technology transfer and process development, and up to \$20 million in catalytic funding to be implemented through a jointly agreed work plan. By combining public and private capital and reducing investment risks, the WBG and its partners aim to mobilise up to \$654 million in financing for regional vaccine manufacturing and to strengthen the systems needed to support it.



Fuente: BioSpectrum Asia. Disponible en <https://n9.cl/6a2tv>



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Patentes registradas en Patentscope

Estrategia de búsqueda: (Vaccine) AND DP:([13.10.2026 TO 22.10.2026]) as the publication date 33 records.

1. 2040080UBIQUITIN VACCINE COMPONENTS

NL - 15.10.2026

Clasificación Internacional A61K 39/00Nº de solicitud 2040080Solicitante ACADEMISCH ZIEKENHUIS LEIDEN (H.O.D.N. LUMC)Inventor/a Zacharias Wijfjes

Provided herein is a vaccine component comprising a ubiquitin covalently bonded to an antigen, wherein the vaccine component does not comprise a cell permeability tag; as well as vaccines comprising such a vaccine component. The vaccine component may be useful in the activation of dendritic cells. Also provided are combinations comprising such a vaccine component or vaccine and a biologically active substance; and formulations comprising such a vaccine component, vaccine, or combination. The vaccine component, vaccine, combination, or formulation may be used as a medicament, for example in the treatment of a condition selected from a cancer and an autoimmune disease.

2. WO/2026/218833MULTIVALENT PNEUMOCOCCAL POLYSACCHARIDE-PROTEIN CONJUGATE VACCINE, PREPARATION METHOD THEREFOR, AND USE THEREOF

WO - 22.10.2026

Clasificación Internacional A61K 39/295Nº de solicitud PCT/CN2026/081562Solicitante UNIVERSALVAX BIOTECHNOLOGIES (TAIZHOU) CO., LTD.Inventor/a LI, Jianping

Provided in the present invention are a multivalent pneumococcal polysaccharide-protein conjugate vaccine for preventing pneumococcal infection and respiratory syncytial virus infection, a preparation method therefor, and use thereof. In the multivalent pneumococcal polysaccharide-protein conjugate vaccine of the present invention, a carrier protein thereof is an immunogenic RSV recombinant protein; the pneumococcal polysaccharide is linked to the RSV recombinant protein by means of a covalent bond; the RSV recombinant protein is selected from a Pre-F protein, and the amino acid sequence thereof is set forth in SEQ ID NO: 2 or SEQ ID NO: 3. The conjugate vaccine of the present invention can simultaneously prevent pneumonia and respiratory syncytial virus infection, thereby reducing the number of vaccinations required. According to the present invention, by means of the mutational modification of the carrier protein in the conjugate vaccine, the carrier protein can maintain the structural stability and antigenic cluster function under different environments.

3. WO/2026/221442KRAS IMMUNOGENIC NON-MUTATED EPITOPE MRNA ANTICANCER VACCINE

WO - 22.10.2026

Clasificación Internacional C12N 9/14Nº de solicitud PCT/KR2026/095929Solicitante ASTON SCIENCE INC.Inventor/a JUNG, Hun

The present invention relates to a KRAS immunogenic non-mutated epitope mRNA vaccine and a use thereof. The present invention provides an mRNA vaccine encoding a KRAS immunogenic non-mutated epitope peptide, and thus may exhibit excellent tumor therapeutic and recurrence-preventive effects against KRAS-expressing cancers.

4.WO/2026/222140DENGUE VACCINE UNIT DOSE AND ADMINISTRATION THEREOF

WO - 22.10.2026

Clasificación Internacional A61K 39/12Nº de solicitud PCT/US2026/023761Solicitante TAKEDA VACCINES, INC.Inventor/a WALLACE, Derek William

The invention relates to a unit dose of a dengue vaccine composition and methods and uses for preventing dengue disease and methods for stimulating an immune response to all four dengue virus serotypes in a subject or subject population. The unit dose of a dengue vaccine composition includes constructs of each dengue serotype, such as TDV-1, TDV-2, TDV-3 and TDV-4, at various concentrations in order to improve protection from dengue infection. Said methods include a method comprising a primary vaccination and a booster vaccination.

5.WO/2026/217710IMMUNOTHERAPY VACCINE

WO - 15.10.2026

Clasificación Internacional A61K 39/00Nº de solicitud PCT/US2026/022903Solicitante CARIS MPI, INC.Inventor/a HALBERT, David Dean

Provided herein is a personalized immunotherapy vaccine in the form of an immunotherapy reagent including at least one peptide corresponding to at least one somatic mutation and/or at least one mRNA encoding the at least one peptide corresponding to the at least one somatic mutation. The personalized immunotherapy vaccine trains an individual's immune system to control or eliminate cells harboring pathogenic somatic mutations before the mutations result in cancer or other medical conditions.

6.WO/2026/218353USE OF BACILLUS CALMETTE-GUERIN VACCINE IN PREPARATION OF DRUG FOR PREVENTING AND TREATING CEREBRAL INFARCTION

WO - 22.10.2026

Clasificación Internacional A61K 39/04Nº de solicitud PCT/CN2025/090329Solicitante HARBIN MEDICAL UNIVERSITYInventor/a PAN, Yujun

Use of a Bacillus Calmette-Guerin vaccine in the preparation of a drug for preventing and treating cerebral infarction. The Bacillus Calmette-Guerin vaccine exerts preventive and therapeutic effects on cerebral infarction by means of inducing immune tolerance memory in microglia. It can reduce the apoptosis rate of mice with cerebral infarction, decrease the cerebral infarction volume of mice, and significantly promote neurological function recovery.

7. 20260315582A **VACCINE** AGAINST LEPTOSPIRA BACTERIUM

US - 15.10.2026

Clasificación Internacional A61K 39/02Nº de solicitud 19482097Solicitante INTERVET INC.Inventor/a Antonius Arnoldus Christiaan JACOBS

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

8. WO/2026/217004A PREVENTIVE AND THERAPEUTIC **VACCINE** AGAINST MALIGNANT MELANOMA

WO - 15.10.2026

Clasificación Internacional A61K 39/00Nº de solicitud PCT/PL2026/000012Solicitante MACKIEWICZ, AndrzejInventor/a MACKIEWICZ, Andrzej

Preventive-therapeutic **vaccine**, for use in the immunoprevention of melanoma in healthy individuals at high risk of developing the disease, containing, as an active substance, at least one line of induced mesenchymal stem cells (iMSCs), genetically modified to express hypercytokine, wherein the hypercytokine is a fusion protein comprising a soluble cytokine receptor linked to the cytokine, whilst the melanoma- induced stem cells (iMSCs) are characterised by the expression of the following markers: SSEA-1, Epcam., E-cadherin, NANOG, alkaline phosphatase and Oct3/4. Use of the **vaccine** according to the invention 9 both in first-line melanoma therapy and in adjuvant therapy.

9. WO/2026/216966 NOVEL HETEROBIARYL COMPOUND AND COMPOSITION FOR ENHANCING IMMUNE RESPONSE COMPRISING SAME AS ACTIVE INGREDIENT

WO - 15.10.2026

Clasificación Internacional A61K 31/428Nº de solicitud PCT/KR2026/095717Solicitante UIF (UNIVERSITY INDUSTRY FOUNDATION), YONSEI UNIVERSITYInventor/a SHIN, Sung Jae

The present invention relates to: a composition for enhancing an immune response, comprising a novel heterobiaryl compound; and a **vaccine** composition comprising same. The compound of the present invention can continuously enhance cellular and humoral immune responses by efficiently stimulating helper T cells. The compound of the present invention can, by itself, be used as a therapeutic composition for tuberculosis by stimulating an immune response alone in a subject infected with various pathogens, including Mycobacterium tuberculosis, nontuberculous mycobacteria, and influenza virus, but can also be effectively used as an efficient **vaccine** adjuvant composition that enhances antigen-specific immune responses when co-administered with an antigen.

10. 20260315588 VACCINES, **VACCINE** PRIMING, AND ANTIGEN DOSE SPARING

US - 15.10.2026

Clasificación Internacional A61K 39/39Nº de solicitud 19704965Solicitante ADJUVANCE TECHNOLOGIES, INC.Inventor/a J. Tyler MARTIN

The present application relates to new vaccines, improved vaccine priming, and antigen dose sparing in connection with triterpene glycoside saponin-derived adjuvants, salt forms thereof, and pharmaceutical compositions, as well as related methods.

11. WO/2026/218091 POLYMERIC N-GLYCAN COMPOUNDS AND COMPOSITIONS

WO - 22.10.2026

Clasificación Internacional C12N 1/21Nº de solicitud PCT/CA2026/050556 Solicitante VAXALTA INC. Inventor/a SZYMANSKI, Christine

N-glycan polymers comprise two or more repeats of an N-glycan unit, wherein each unit comprises a heptasaccharide derived from *Campylobacter*, and bacteria engineered to express such polymers. Also disclosed are vaccine compositions including such N-glycan polymers, and methods of vaccinating subjects with such vaccine compositions.

12. 20260315584 RECOMBINANT PROTEIN, EXPRESSION CASSETTE, IMMUNOGENIC COMPOSITION AND USE THEREOF

US - 15.10.2026

Clasificación Internacional A61K 39/09Nº de solicitud 19479132 Solicitante Instituto Butantan Inventor/a Daniel Ladant

The present invention relates to a recombinant protein comprising one or more fragments of pneumococcal surface protein A (PspA) and the adenylate cyclase (CyaA) from *Bordetella* species, especially *Bordetella pertussis*, wherein said PspA fragments are selected from clades 1 to 4, or a combination of two or more thereof. Additionally, the invention relates to an expression cassette comprising a DNA sequence encoding said recombinant protein, especially a DNA sequence selected from the group consisting of nucleotide sequences as set forth in SEQ ID NOs: 12 to 18 and degenerate sequences thereof that encode a recombinant protein as set forth in SEQ ID NOs: 5 to 11 respectively. Further, an immunogenic composition comprising said recombinant protein or said expression cassette, and additionally a pharmaceutically acceptable carrier and/or adjuvant is disclosed. Finally, the invention relates to the use of said recombinant protein, or said expression cassette, or said immunogenic composition for the manufacture of a vaccine for preventing infections caused by *Streptococcus pneumoniae*, wherein said vaccine offers broad-spectrum protection against different pneumococcal isolates, regardless of serotypes.

13. 4820051 IMPFSTOFFPLATTFORM AUF BASIS EXTRAZELLULÄRER VESIKEL

EP - 14.10.2026

Clasificación Internacional A61K 39/385Nº de solicitud 24820667 Solicitante UNIV DUISBURG ESSEN Inventor/a GIEBEL BERND

The invention is based on fusion proteins comprising immunogenic antigens and partial cell adhesion proteins expressed in secreted extracellular vesicles for use in inducing immune responses in mammals. The invention is applicable as a novel platform technology for the development of vaccines, for methods of vaccination, for example against diseases or the generation of immune responses in mammals. The invention is for example useful as a platform technology for the generation of novel antibodies. The invention provides the cell adhesion protein based fusion proteins, recombinant cells, extracellular vesicles, and methods and uses thereof, for vaccination and vaccine development against for example infectious diseases.

14. [20260315404](#) **VACCINE** COMPOSITION COMPRISING A SYSTEM FOR DELIVERING AN INACTIVATED WHOLE BACTERIUM VIA CATIONIC POLYSACCHARIDE NANOPARTICLES WITHOUT ANY ADJUVANT

US - 15.10.2026

Clasificación Internacional [A61K 9/51](#)Nº de solicitud 19156827Solicitante VaxinanInventor/a Didier Betbeder

A prophylactic **vaccine** composition that is intended for mammals and birds comprises a killed whole bacterium, the bacterium being covered with a cationic agent, in particular, cationic nanoparticles.

15. [WO/2026/220031](#) **VACCINE** COMPOSITIONS FOR H. INFLUENZAE COMPRISING A COMBINATION OF ANTIGENS

WO - 22.10.2026

Clasificación Internacional [A61K 39/102](#)Nº de solicitud PCT/EP2026/061108Solicitante INSTITUT PASTEURInventor/a TAHA, Muhamed-Kheir

P5 antigens, to the use of said immunogenic composition in an immunization method, and to a **vaccine** comprising said immunogenic composition.

16. [WO/2026/217949](#) METHODS AND MATERIALS FOR IDENTIFYING AND TREATING **VACCINE**-INDUCED IMMUNE THROMBOTIC THROMBOCYTOPENIA (VITT) AND SPONTANEOUS VITT

WO - 15.10.2026

Clasificación Internacional [G01N 33/543](#)Nº de solicitud PCT/US2026/023283Solicitante MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCHInventor/a PADMANABHAN, Anand

Methods and materials for identifying and/or treating mammals (e.g., humans) having **vaccine**-induced immune thrombotic thrombocytopenia (VITT) or spontaneous VITT are provided herein. For example, methods and materials that can be used to differentiate between mammals (e.g., humans) having VITT/spontaneous VITT and mammals having other causes of thrombotic thrombocytopenia (e.g., heparin-induced thrombocytopenia) are provided herein.

17. [WO/2026/221367](#) **VACCINE** COMPOSITION COMPRISING BP26 NANOSTRUCTURE, ANTIGEN POLYPEPTIDE, AND ASSEMBLY-TYPE PROTEIN-BINDING MODULE

WO - 22.10.2026

Clasificación Internacional [C07K 14/23](#)Nº de solicitud PCT/KR2026/005440Solicitante KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGYInventor/a JON, Sangyong

, and thus is expected to be actively used for various medical and health enhancement purposes.

18. [WO/2026/221982](#) NANOPARTICLE AND NON-CODING RNA COMPOSITIONS

WO - 22.10.2026

Clasificación Internacional A61K 9/51Nº de solicitud PCT/US2026/023459Solicitante HDT BIO CORP.Inventor/a ERASMUS, Jesse

The disclosure provides compositions, methods of treatment, and methods of making and using compositions to deliver a nucleic acid to a subject that, optionally, have reduced reactogenicity and promotes a local innate immune response in the subject while promoting an adaptive immune response to an antigen. Compositions described herein include nanoparticles, optionally including a cationic lipid, a hydrophobic core, surfactants and/or an inorganic particle, for admixing with nucleic acids encoding proteins, antibodies, immunomodulators and a microRNA binding site. Methods of using the compositions as a therapeutic vaccine and for the treatment of an infection or cancer are also provided.

19.WO/2026/215238ATTENUATED AFRICAN SWINE FEVER VIRUS AND USE THEREOF IN VACCINE COMPOSITIONS

WO - 15.10.2026

Clasificación Internacional A61K 39/12Nº de solicitud PCT/EP2026/059988Solicitante INTERVET INTERNATIONAL B.V.Inventor/a VAN DEN BORN, Erwin

The present invention relates to a recombinant attenuated African Swine Fever Viruses wherein the genes *EP153R*, *EP402R*, *I7L*, *I8L*, *I9R*, *I10L* and *I11L* have been inactivated. Additionally the current invention discloses the use of the recombinant ASFV or an immunogenic composition comprising said attenuated recombinant ASFV for the prevention or treatment of a disease caused by infection by African Swine Fever Virus

20.20260315587SHINGLES VACCINE COMPRISING A TLR9 AGONIST

US - 15.10.2026

Clasificación Internacional A61K 39/25Nº de solicitud 19533015Solicitante Dynavax Technologies CorporationInventor/a John D. CAMPBELL

The present disclosure relates to immunogenic compositions comprising a varicella zoster virus (VZV) glycoprotein E antigen and a toll-like receptor 9 (TLR9) agonist, such as an oligonucleotide comprising an unmethylated cytidine-phospho-guanosine (CpG) motif. The immunogenic compositions are suitable for stimulating an immune response against VZV in an individual in need thereof.

21.WO/2026/215241ATTENUATED AFRICAN SWINE FEVER VIRUS AND USE THEREOF IN VACCINE COMPOSITIONS

WO - 15.10.2026

Clasificación Internacional A61K 39/12Nº de solicitud PCT/EP2026/059991Solicitante INTERVET INTERNATIONAL B.V.Inventor/a VAN DEN BORN, Erwin

The present invention relates to a recombinant attenuated African Swine Fever Viruses wherein the genes *EP153R*, *EP402R*, *MGF 360-4L*, *MGF 360-6L*, *X69R*, *MGF 300-1L*, *MGF 300-2R* and *MGF 300-4L* have been inactivated. Additionally the current invention discloses the use of the recombinant ASFV or an immunogenic composition comprising said attenuated recombinant ASFV for the prevention or treatment of a disease caused by infection by African Swine Fever Virus.

22. 4822025MPV-IMPSTOFF

EP - 14.10.2026

Clasificación Internacional C12N 15/45Nº de solicitud 24899800Solicitante SHENZHEN SHENXIN BIOTECHNOLOGY CO LTDInventor/a LI LINXIAN

23. WO/2026/215348TUMOR-SPECIFIC NEOEPITOPE IDENTIFICATION

WO - 15.10.2026

Clasificación Internacional G16B 15/30Nº de solicitud PCT/EP2026/060184Solicitante YGION BIOMEDICAL GMBHInventor/a CASARI, Georg

A method of identifying a candidate peptide for use in a personalized anti-tumor vaccine, the method comprising DNAseq of a tumor sample and a normal sample of a subject, processing the DNA reads to determine nucleotide mutants which comprise at least one mutation comprising a variant pair in the same haplotype and translate into tumor-specific neoepitopes with predicted MHC-I presentation, and selecting a peptide as a candidate peptide which comprises a tumor-specific neoepitope that aligns with a reading frame of mRNAseq reads of the tumor sample.

24. WO/2026/215512VACCINE USES

WO - 15.10.2026

Clasificación Internacional A61K 39/12Nº de solicitud PCT/EP2026/060503Solicitante ASTRAZENECA ABInventor/a CHANG, Lee-Jah

The present disclosure relates to methods of immunizing individuals for prophylaxis or prevention of an infection by a virus (e.g., a sarbecoronavirus virus such as a SARS-CoV-2 virus) and methods of inducing a pan-variant immune responses against a virus using low doses of vaccines.

25. WO/2026/221466MODIFIED PEPTIDE-BASED NOVEL LIPID, LIPID NANOPARTICLES COMPRISING SAME, AND USE THEREOF

WO - 22.10.2026

Clasificación Internacional C07K 7/08Nº de solicitud PCT/KR2026/096032Solicitante KOREA INSTITUTE OF SCIENCE AND TECHNOLOGYInventor/a BANG, Eun-Kyoung

The present invention relates to a peptide-based novel modified lipid compound, a lipid nanoparticle composition comprising same, a vaccine composition comprising the lipid nanoparticle composition, and a preparation method therefor. According to the present invention, the compound may replace existing PEGylated lipids to form lipid nanoparticles, and may inhibit aggregation between particles to give excellent colloidal stability. In addition, the lipid nanoparticle composition may effectively encapsulate a therapeutic or prophylactic agent and thus may be usefully employed as a carrier for nucleic acids.

26. 20260317842COMPOSITIONS, KITS, AND METHODS FOR DETECTION OF VARIANT STRAINS OF AFRICAN SWINE FEVER VIRUS

US - 15.10.2026

Clasificación Internacional C12Q 1/70Nº de solicitud 19101229Solicitante Life Technologies CorporationInventor/a Sandrine Moine

Disclosed are compositions, methods, systems, and kits for the detection of African swine fever virus (ASFV) in a test sample, and in particular for distinguishing between wild/reference type ASFV and mutant/variant strains of ASFV. A variant ASFV assay includes a first set of primers and a first probe that correspond to a first ASFV target, and a second set of primers and a second probe that correspond to a second ASFV target. The first and second probes are differentially labelled. The first ASFV target is a MGF360 gene and the second ASFV target is the CD2v gene. Absence of these targets, in conjunction with a positive determination for another generic ASFV target such as the p72 gene, is indicative of a **vaccine**-associated variant strain of ASFV.

27. 20260315586 PHASE-SEPARATING PEPTIDE COACERVATES FOR NUCLEIC ACID TRANSFECTION AND MRNA **VACCINE** DELIVERY

US - 15.10.2026

Clasificación Internacional A61K 39/215Nº de solicitud 19646965Solicitante The Chinese University of Hong KongInventor/a Jiang XIA

The subject invention pertains to novel phase-separating peptide-based nucleic acid formulations and methods thereof that generate robust nucleic acid transfection in both in vitro and in vivo systems and exhibit the uprising potential for delivering nucleic acid therapeutics for the treatment of cancer and infectious diseases.

28. 20260317406 COMPOSITIONS AND METHODS FOR THE TREATMENT OF TUBERCULOSIS

US - 15.10.2026

Clasificación Internacional C07K 16/1289Nº de solicitud 19723837Solicitante Ramot at Tel-Aviv University Ltd.Inventor/a Natalia FREUND

A human antibody comprising an antigen binding domain which binds PstS1 of *Mycobacterium tuberculosis* (TB) for use in preventing or treating TB infection in a subject in need thereof is provided. Also provided are **vaccine** compositions and conjugates of such antibodies.

29. WO/2026/218086 PROTEIN-BASED **VACCINE** COMPOSITION FOR PROTECTION AGAINST STREPTOCOCCUS SUIIS

WO - 22.10.2026

Clasificación Internacional C12N 15/31Nº de solicitud PCT/CA2026/050551Solicitante EVAH SWINE TECHNOLOGY INC.Inventor/a KOUIDMI, Imene

The present disclosure relates to immunogenic compositions for inducing an immune response against *Streptococcus suis*. The compositions comprise recombinant polypeptides derived from the *Streptococcus suis* surface antigen one (Sao) polypeptide. In one aspect, the recombinant polypeptides consist essentially of one or more complete 30-amino-acid SEK repeat domains, optionally in combination with an SKE repeat domain positioned N-terminally thereto. In another aspect, the disclosure includes truncated Sao-derived polypeptides comprising at least one complete SEK repeat domain and lacking one or more terminal regions

of the Sao parent polypeptide. The recombinant polypeptides may be isolated, present in bacterial extracts, or conjugated or fused to immunogenic carrier molecules, and may be formulated with pharmaceutically or veterinary acceptable excipients, diluents, or carriers, and optionally with adjuvants. The disclosed compositions are suitable for use in immunization of mammals against *Streptococcus suis*.

30. WO/2026/222091 NEURAL NETWORK-BASED NEOANTIGEN SELECTION

WO - 22.10.2026

Clasificación Internacional G16B 20/20Nº de solicitud PCT/US2026/023669 Solicitante NATERA, INC. Inventor/a BURNS, Robert

Disclosed herein are prediction models useful for determining a personalized prediction for an individual. For example, prediction models can predict whether a candidate neoantigen is likely to be immunogenic. Selected candidate neoantigens that are likely to be immunogenic can be included in a therapeutic vaccine for administering to the individual. To train a prediction model, a high-quality training dataset of neoantigens is constructed and further augmented to improve the performance of the prediction model. Prediction models are trained on individual-level labels, which are more readily obtainable and capture aggregate immune responses observed in individual patients.

31. 4821505 TUBERKULOSEIMPFSTOFFZUSAMMENSETZUNG MIT FUSIONSPROTEIN ZUR INDUZIERUNG BAKTERIZIDER IMMUNITÄT GEGEN MYCOBACTERIUM TUBERCULOSIS

EP - 14.10.2026

Clasificación Internacional A61K 39/04Nº de solicitud 24901000 Solicitante MYCO RAPHA INC. Inventor/a KIM HWA JUNG

32. WO/2026/220159 METHODS AND COMPOSITIONS FOR CHRONIC INFLAMMATION USING COLCHICINE

WO - 22.10.2026

Clasificación Internacional A61K 31/165Nº de solicitud PCT/GB2026/050670 Solicitante MURRAY AND POOLE ENTERPRISES, LTD. Inventor/a RIEL, Michael

Pharmaceutical compositions of colchicine for once-daily oral administration are provided for use in the treatment of chronic inflammation, including inflammation arising after COVID-19 vaccination and/or COVID-19 infection (Long COVID). The formulations comprise, in some embodiments, an immediate-release component and/or a sustained-release component, which is tailored to achieve a desired pharmacokinetic profile suitable for long-term anti-inflammatory therapy. The disclosed compositions are designed to reduce systemic levels of key inflammatory biomarkers, such as high-sensitivity C-reactive protein (hs-CRP), C-reactive protein (CRP), interleukin-1 (IL-1), interleukin-1 β (IL-1 β), interleukin-6 (IL-6), tumor necrosis factor- α (TNF- α), and myeloperoxidase (MPO), and to alleviate clinical manifestations of persistent inflammation, including vaccine-associated myocarditis, pericarditis, or other inflammatory sequelae. Methods of treating post-vaccination and/or post-infection inflammatory syndromes, improving quality of life, and reducing hospitalization risk in mammalian subjects are also provided.

33.20260315645 POLYVALENT POLYMERS AS THERAPEUTICS AND DRESSINGS FOR TISSUE REPAIR, WOUND HEALING, AND ADJUVANTS FOR VACCINE DELIVERY

US - 15.10.2026

Clasificación Internacional A61L 15/22Nº de solicitud 19648580 Solicitante Kaushal Regel Inventor/a Kaushal Rege

The present disclosure provides compositions and functionalized wound dressings useful for treating wounds, as well as methods of using the same to treat wounds. The present disclosure further provides compositions and methods for inducing an immune response in a subject.

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