



EN ESTE NÚMERO

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

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

- Noticias más recientes en la Web sobre vacunas.
- Artículos científicos más recientes de Medline sobre vacunas.
- Patentes más recientes en PATENTSCOPE sobre vacunas.
- Patentes más recientes en USPTO.

Noticias en la Web

Sanofi completes acquisition of Vicebio

Dec 4. Sanofi announces the completion of its acquisition of Vicebio Ltd (“Vicebio”). This acquisition brings an early-stage combination vaccine candidate for respiratory syncytial virus (RSV) and human metapneumovirus (HMPV), both respiratory viruses, and expands the capabilities in vaccine design and development with Vicebio’s ‘Molecular Clamp’ technology.

The acquired vaccine candidate complements Sanofi’s position in respiratory vaccines. It enables Sanofi to offer increased physician and patient choice in RSV and HMPV by adding a non-mRNA vaccine to its pipeline.

About Sanofi

Sanofi is an R&D driven, AI-powered biopharma company committed to improving people’s lives and delivering compelling growth. We apply our deep understanding of the immune system to invent medicines and vaccines that treat and protect millions of people around the world, with an innovative pipeline that could benefit millions more. Our team is guided by one purpose: we chase the miracles of science to improve people’s lives; this inspires us to drive progress and deliver positive impact for our people and the communities we serve, by addressing the most urgent healthcare, environmental, and societal challenges of our time.



Sanofi is listed on EURONEXT: SAN and NASDAQ: SNY

Fuente: SANOFI. Disponible en <https://n9.cl/eg3vd>

Korea injects \$18.9 mil. into CEPI to speed up 100-day pandemic vaccine mission

Dec 5. Korea’s Ministry of Foreign Affairs said Friday it has pledged a fresh \$18.9 million contribution to the Coalition for Epidemic Preparedness Innovations (CEPI) through the end of 2026, strengthening its role as a key contributor to global pandemic preparedness and vaccine innovation.

The funding brings Korea’s total investment in CEPI to \$70 million and underscores the government’s strategy to help the world respond faster to emerging infectious threats, including the hypothetical “Disease X.”

The latest investment will fund CEPI’s work as the organization advances its mission to enable vaccines and countermeasures to be developed within 100 days of identifying a new pathogen. That target is roughly one-third of the development time for the first COVID-19 vaccines and is widely seen as essential to preventing the catastrophic health and economic impacts experienced during the pandemic.



The financial agreement was formalized at CEPI's headquarters in Oslo, Norway, where Korean Ambassador to Norway Seo Min-jeong met CEPI CEO Dr. Richard Hatchett. Seo welcomed the progress CEPI has made under its current strategic plan and said Korea will continue to collaborate closely with the partnership. She also noted that Dr. Hatchett's scheduled visit to Korea in 2026 aligns with growing momentum around global biosecurity.

CEPI's next strategic phase, known as CEPI 3.0, aims to accelerate the "100 Days Mission" by expanding scientific and technological capabilities.

Korea's biotech ecosystem is already integral to CEPI's work. SK bioscience, the developer of the homegrown Covid-19 vaccine SKYCovione, is working on a vaccine candidate with CEPI support that could fight multiple coronaviruses.

CEPI also collaborates with the Korea Disease Control and Prevention Agency (KDCA) and the International Vaccine Institute (IVI) on standardized global vaccine testing networks, and is exploring AI-driven outbreak response tools with Korea's KISTI supercomputing infrastructure.

"We don't know where or when the next pandemic threat may strike, but we know it's coming – and the world cannot afford to be caught off guard again. Korea's continued investment in CEPI is a powerful commitment to that readiness, and sends a strong, urgent message to the world that preparedness matters," CEPI CEO Hatchett said.

"With its exceptional R&D capacity and proven ability to mobilize fast, Korea is powering a partnership that brings us closer to one shared ambition: ending pandemics for good."

Fuente: Korea Biomedical Review. Disponible en <https://n9.cl/cddqg>

A new era dawns for Gavi, as Board underlines strategic shift towards country ownership and increased support for the most vulnerable

Dec 7. The Board of Gavi, the Vaccine Alliance today concluded its final meeting before the start of Gavi's next strategic period from 2026 to 2030 (Gavi 6.0), taking a series of decisions that will further place country ownership at the heart of the Gavi model, increase focus on protecting the most vulnerable despite financial constraints, and support expanding equitable access to key vaccines.

In a major strategic shift that further centers country ownership, nearly 90% of the budget available to Gavi for vaccine procurement in its next strategic period will be allocated directly to countries through "country vaccine budgets". In a time of financial constraints, countries will have full control of how to optimise and prioritise immunisation programmes per their national strategies and context. By shifting away from rolling applications, country vaccine budgets ensure countries that apply more quickly do not have an advantage in terms of access to Gavi financing. They also mean that all countries have an advance view of resources available for the next five years – and can clearly identify in advance areas to supplement with domestic financing.

"Through the Gavi Leap, we are putting in place an ambitious programme of reforms that will enable countries to have increased agency and ownership over use of resources and decreased administrative burden, which will help our Alliance achieve its programmatic objectives. These changes are well on their way to implementation, with grant management reform – a key pillar of the

Gavi Leap – already in place and a year-long Secretariat review that will see our headcount reduce by 33% now complete. I want to thank the Board for their support and guidance as we migrate to our new country-centric operating model and pay tribute to José Manuel Barroso for his leadership as Chair of the Gavi Board over the past five years,” said Dr Sania Nishtar, CEO of Gavi, the Vaccine Alliance.

Building on an earlier decision, Gavi’s Board also finalised an approach to further sharpen the Alliance’s focus on the most vulnerable. Gavi will overall increase its support for fragile and conflict-affected settings by 15% compared to its last five-year strategic period, despite cuts elsewhere. As a result, more than a third of Gavi’s overall funding for countries will be focused on the 25% most vulnerable children. Allocations for country vaccine budgets will also prioritise the lowest income countries with the highest number of deaths amongst children under five. A new agile funding mechanism, called the Gavi Resilience Mechanism, will provide flexible support to countries and partners in fragile and humanitarian settings around the world.

The Board also provisionally approved the addition of nine-valent human papillomavirus (HPV) vaccines to Gavi’s portfolio of offerings to countries – signalling Gavi’s continued commitment to fighting cervical cancer. Gavi’s ambitious push to revitalise the HPV programme has saved more than a million lives. The Board also agreed to add vaccines against tuberculosis, mpox, and respiratory syncytial virus (RSV) to the list of priority antigens supported by Gavi’s African Vaccine Manufacturing Accelerator (AVMA), a financing mechanism dedicated to supporting efforts to build sustainable regional manufacturing on the African continent.

New approach aligns ambitions with available resources

Gavi’s Board also finalised decisions designed to recalibrate its ambitious strategy in line with available resources, which are estimated to reach US\$ 10 billion for the next five years.

In order to protect funding for country vaccine budgets, the Board agreed to reduce Gavi’s financial forecast for global stockpiles by US\$ 200 million and halve the US\$ 200 million budget set aside for vaccine procurement contingencies. It also agreed that US\$ 100 million in co-financing waivers for fragile & conflict-affected countries would be financed through a separate pot set aside for funding work in these settings. Building on decisions made at its June 2025 meeting, the Board also agreed on a final set of programmatic choices that will reduce the overall cost of procuring vaccines for the next strategic period. These savings will be achieved by better targeting introductions and campaigns across several vaccine programmes. In June 2025, the Board agreed that Gavi will introduce country co-financing requirements for preventive campaigns, in line with those currently implemented for routine vaccine programmes. To ensure a smooth transition in 2026, the Board has now approved a one-year waiver of these co-financing requirements for preventive campaigns in the lowest-income countries.

Board Chair reflects on an unprecedented period in Gavi’s history

This week also represented the final meeting presided over by Board Chair Professor José Manuel Barroso. Appointed in 2020, Professor Barroso began his term in 2021 and has led the Gavi Board for the entirety of the organisation’s current five-year strategic period. As former President of the European Commission and former Prime Minister of Portugal, Professor Barroso played a critical role in steering Gavi as it delivered on its objectives for Gavi 5.0 while co-leading a historic global emergency vaccine response to the COVID-19 pandemic.

Reflecting on his five years leading Gavi, Prof. José Manuel Barroso, Chair of the Gavi Board, said: “As Gavi nears the end of its fifth strategy period, it is possible to look back at the last five years with a historic sense of accomplishment in a period marked by redefined multilateralism in a multipolar world. More than ever the Gavi model of public private partnership is fit for purpose and can serve as a blueprint for future initiatives. As we look ahead to the next period starting in January, Gavi is in a strong position: not just to protect more children than ever before but to help shape a new model where countries themselves drive their own vaccination agenda – and achieve the Alliance overall goal of protecting our future and strengthening country self-reliance. As my tenure as Chair draws to a close, I want to thank all of Gavi’s stakeholders for the role they have played in our collective success, and wish my successor, the Rt Hon Helen Clark my very best wishes in her new role”.

During its fifth strategic period from 2021 to 2025, Gavi exceeded the target of achieving a 10% reduction in under-five mortality in supported countries, is ahead of schedule to meet the target of 300 million children immunised against a range of diseases, and is on track to reach its targets of 7-8 million deaths averted and US\$ 80 billion generated in economic savings. In 2024 alone, Gavi-supported vaccination programmes saved at least 1.7 million lives in 2024, the highest number recorded in a single year. Critical new efforts to introduce malaria vaccines and revitalise HPV vaccination programmes against cervical cancer also achieved their targets. While delivering on these goals, the Alliance also helped the world respond to infectious disease emergencies – supporting an unprecedented number of outbreak response efforts, delivering 2 billion COVID-19 vaccines to 146 countries via COVAX, and enabling recovery of routine immunisation coverage after the pandemic through “the Big Catch-Up” campaign.

Fuente: RELIEF WEB. Disponible en <https://n9.cl/cyqzd>

Protegiendo el futuro de nuestras niñas

Dic 7. El Ministerio de Salud Pública de Cuba, con el aval de la OPS/OMS, ha incorporado la vacuna Cecolin contra el Virus del Papiloma Humano (VPH) al esquema nacional de inmunización.

Esta es una medida preventiva clave para eliminar el cáncer cervicouterino; comenzó en octubre pasado y prevé la inmunización de más de 68 000 niñas en todo el país.

Esta campaña está dirigida a crear una barrera de protección para toda la comunidad.

La vacuna Cecolin, producida por la empresa china Innovax, es segura y efectiva, y cuenta con el aval de precalificación por la Organización Mundial de la Salud (OMS). La respuesta inmunológica que genera es más fuerte que la de una infección natural, proporcionando una sólida y duradera protección.

La vacuna contra el VPH provee inmunidad efectiva y es una herramienta fundamental para la prevención del cáncer.



Protege específicamente contra los tipos de VPH de alto riesgo más comunes, previniendo la infección que podría derivar en cáncer años después. Es una decisión de salud que mira 15 o 20 años hacia adelante.

La vacunación está dirigida a todas las niñas que hayan cumplido nueve años al momento de la vacunación. Se aplicará de forma nacional en tres escenarios principales: en las escuelas primarias (con personal médico presente), en todos los vacunatorios de los policlínicos y en los puntos periféricos certificados de cada territorio.

«Para las niñas de escuelas especiales, se vacunará a todas las de nueve años, sin importar su grado.

La vacuna es más eficaz cuando se administra antes del inicio de la vida sexual, es decir, antes de que la persona pueda entrar en contacto con el virus.

«Al vacunar a los nueve años, aseguramos que las niñas estén protegidas antes de cualquier posible exposición futura, maximizando la prevención del cáncer».

Vacunar a las niñas de nueve años con altas coberturas tiene un efecto comunitario muy positivo, conocido como inmunidad de rebaño. Al crear una gran cohorte de personas inmunes, se reduce significativamente la circulación del virus en toda la población, protegiendo indirectamente a otros grupos de edad. La estrategia prioriza la vacunación en la edad más efectiva para cortar la cadena de transmisión.

En esta primera etapa solo se vacunará a las niñas. Esto se debe a que, aproximadamente, el 70 % de los cánceres causados por el VPH son cáncer cervicouterino. La evidencia científica muestra que alcanzar altas coberturas de vacunación en niñas reduce drásticamente el riesgo de infección para los niños, beneficiando así a toda la comunidad.

Existen más de 200 tipos de VPH. La vacuna no trata ni cura una infección existente, pero sí previene la infección futura por los tipos 16 y 18, que son los de mayor riesgo para desarrollar cáncer cervicouterino. Por lo tanto, la vacunación sigue ofreciendo protección adicional.

Fuente: GRANMA. Disponible en <https://n9.cl/a2o7a>

Vaxcyte inicia ensayo fase 3 de vacuna neumocócica VAX-31

8 dic. Vaxcyte, Inc. (NASDAQ:PCVX) ha administrado dosis a los primeros participantes en su ensayo fase 3 OPUS que evalúa VAX-31, un candidato a vacuna neumocócica conjugada 31-valente para adultos, anunció la compañía el lunes. La empresa de vacunas en fase clínica, que actualmente cotiza a 46,48 dólares, se acerca a una fase crítica de desarrollo con una sólida base financiera, ya que los datos de InvestingPro muestran que mantiene más efectivo que deuda en su balance.

El ensayo pivotal, diseñado en consulta con la Administración de Alimentos y Medicamentos de EE.UU., inscribirá aproximadamente a 4.000 participantes y comparará directamente VAX-31 con las vacunas estándar actuales Capvaxive (PCV21) y Prevnar 20 (PCV20).

VAX-31 está diseñada para cubrir aproximadamente el 95% de la enfermedad neumocócica invasiva y el 88% de la neumonía neumocócica en adultos estadounidenses de 50 años o más. Esto potencialmente representa un aumento del 14-34% en la cobertura de enfermedades invasivas y un aumento del 19-31% en la cobertura de neumonía en comparación con las vacunas existentes.

Los objetivos primarios de inmunogenicidad incluyen demostrar la no inferioridad en comparación con las vacunas actuales para serotipos compartidos y la superioridad para serotipos únicos de VAX-31.

"El inicio de nuestro programa de Fase 3 para adultos marca un hito importante en el desarrollo de VAX-31, ya que el programa entra en la fase final de desarrollo clínico", dijo Grant Pickering, Director Ejecutivo y Cofundador de Vaxcyte.

Se esperan resultados preliminares de seguridad, tolerabilidad e inmunogenicidad del ensayo OPUS en el cuarto trimestre de 2026, con estudios adicionales de Fase 3 planificados para comenzar en 2026 con resultados en 2027. Estos estudios respaldarán una solicitud planificada de Licencia Biológica.

La enfermedad neumocócica sigue siendo una amenaza significativa prevenible por vacunación en adultos, con la neumonía neumocócica estimada en causar más de 150.000 hospitalizaciones anualmente en Estados Unidos.

La compañía también está evaluando VAX-31 en un programa clínico de Fase 2 para infantes, con datos esperados para finales del primer semestre de 2027.

Según el comunicado de prensa de la compañía, VAX-31 recibió previamente la designación de Terapia Innovadora de la FDA para la prevención de neumonía y enfermedad neumocócica invasiva en adultos.

En otras noticias recientes, Vaxcyte ha anunciado un acuerdo significativo con Thermo Fisher Scientific, valorado en hasta 1.000 millones de dólares, para establecer la fabricación comercial de llenado y acabado para sus vacunas neumocócicas conjugadas en Estados Unidos. Este acuerdo permitirá a Vaxcyte utilizar la instalación de Thermo Fisher en Greenville, Carolina del Norte, para la producción de sus vacunas. Además, Leerink Partners ha elevado su objetivo de precio para Vaxcyte a 77 dólares desde 60 dólares, manteniendo una calificación de Mejor Rendimiento. Este ajuste sigue a una gira no comercial donde la dirección de Vaxcyte expresó confianza en la dosis optimizada de la vacuna VAX-31 añadida al ensayo de Fase 2 en infantes. Mientras tanto, Goldman Sachs ha iniciado la cobertura de Vaxcyte con una calificación Neutral y un objetivo de precio de 38 dólares. La firma reconoce la plataforma de descubrimiento y desarrollo de vacunas de Vaxcyte, que ha mostrado datos prometedores para su franquicia de vacunas neumocócicas. Estos desarrollos posicionan a Vaxcyte como un contendiente notable en el mercado de vacunas neumocócicas de 8.000 millones de dólares.

Fuente: Investing.com. Disponible en <https://n9.cl/56n2p>

Scientists in Korea to create mRNA vaccine against emerging Asian tick-borne virus

Dec 8. Leading scientific organisations in Korea including the Korea Disease Control Agency (KDCA), International Vaccine Institute (IVI), ST Pharm and Seoul National University (SNU), are joining forces with CEPI to advance a new AI-designed mRNA vaccine that could become the first-ever vaccine to protect against a potentially deadly tick-borne disease affecting countries in Asia.

Cases of severe fever with thrombocytopenia syndrome, or SFTS—caused by the SFTS virus, also known as Dabie Bandavirus—have been reported in China, Japan, Korea, Taiwan and Vietnam.

Symptoms can emerge mainly after people are bitten by infected ticks or possibly infected domestic animals like cats and may include fever, low blood cell count, vomiting and diarrhoea. In severe cases, predominantly affecting elderly people, illness can progress into multiple-organ failure and death. Countries like Korea have identified SFTS as a significant public health concern and made the development of an SFTS vaccine a national priority.

CEPI is providing up to US \$16 million to the project, led by IVI, to test the vaccine's safety and ability to generate a suitable immune response in healthy adults in preclinical and Phase I/II clinical trials in Korea. This is the first time an SFTS vaccine candidate could be tested in people.

SFTS virus has been selected for this research as a representative (or "prototype") pathogen from the Phenuivirus family. Successfully designing a vaccine against the SFTS virus would provide a blueprint for developing vaccines against other closely related Phenuiviruses. The learnings, data and materials from this research could therefore give the world a head start in rapidly developing safe and effective vaccines against Phenuiviruses with pandemic potential that may emerge in the future and pose a threat to public health, livestock and agriculture.

This approach—where pre-established knowledge about a virus and how to make vaccines against it is used to fight new outbreaks—was vital to the unprecedented speed at which life-saving COVID-19 vaccines were developed. Earlier research into two known coronaviruses, SARS and MERS, meant scientists had already solved many of the critical vaccinology problems for coronaviruses in advance and could pivot their efforts quickly when SARS-CoV-2 emerged in early 2020.

"We don't know what the next pandemic will be, but we know that we need to be prepared. By advancing an SFTS vaccine, we will both help to address an increasingly menacing viral threat in Asia and generate scientific knowledge that could dramatically accelerate our response to the next Disease X" explains Dr. Richard Hatchett, CEO of the Coalition for Epidemic Preparedness Innovations (CEPI).



“That way, we won’t be wasting valuable time creating a new vaccine from scratch if a deadly new Phenuivirus emerges in the future and we’ll have a fighting chance of stopping an incipient pandemic in its tracks. This partnership between CEPI and world-leading scientific institutions based in Korea will make the region, and the world, a safer place.”

In this case, scientific knowledge generated by the SFTS vaccine research will be added to CEPI’s ‘Disease X Vaccine Library’, a comprehensive collection of data and information on vaccines against viruses from different families that can be rapidly adapted for use during outbreaks of related viruses with pandemic potential. This approach is central to the 100 Days Mission: a global goal, spearheaded by CEPI and embraced by G7 and G20 nations including Korea, to develop pandemic-busting vaccines in just 100 days.

The vaccine candidate to be tested in the trial led by IVI is being designed by KDCA and SNU, using ST Pharm’s proprietary SMARTCAP® platform technology already validated in a Phase I clinical trial. The Houston Methodist Research Institute (HMRI), a CEPI partner based in the US, will also support its development, using its cutting-edge AI techniques to speed up and help design safer and potentially more immune-boosting components of the vaccine within a matter of hours rather than weeks or months.

Dr. Seungkwan Lim, Commissioner of KDCA said: “The development of an SFTS mRNA vaccine through international cooperation will further strengthen our capacity to respond to emerging infectious diseases. We will continue to expand the Vaccine Library for priority pathogens.”

Dr. Jerome H. Kim, Director General of the International Vaccine Institute, said: “IVI is proud to lead this consortium of outstanding partners in advancing the world’s first clinical development of an SFTS vaccine. By combining mRNA technology, artificial intelligence, and proven technical expertise, we aim not only to tackle a serious and growing public health threat in Asia but also to generate knowledge that can accelerate vaccine development for future emerging diseases. Our shared commitment is to ensure that, if successful, this vaccine and its future iterations will be accessible to the people and countries that need them, when they need them.”

Dr. Mooje Sung, CEO of ST Pharm, said: “ST Pharm is delighted and very proud to partner in this AI-based mRNA vaccine development project for an SFTS vaccine, leveraging our proprietary SmartCap® and STLNP® platforms as well as our global CDMO capabilities. We will support the safe and efficient development and production of the SFTS vaccine candidate.”

“ST Pharm will provide expertise spanning the entire vaccine manufacturing process, from R&D to preclinical and clinical stages, and ultimately to commercialization, ensuring stable supply based on our globally certified GMP standards and manufacturing systems. Furthermore, the data and materials generated during this research and manufacturing process are expected to contribute to accelerated preparedness for future pandemic response. Through this collaboration, ST Pharm aims to contribute to improving health and safety in Asia and around the world, while continuously strengthening capabilities in global drug development and pandemic response. We believe this project provides a valuable opportunity to combine scientific knowledge and innovative technology to prevent deadly diseases, such as SFTS, and to establish a foundation for rapid response to future pandemics.”

Dr. Soo-Jin Jung, Senior Researcher at RNA Biology Lab, Seoul National University, said: “We are excited to apply our advanced mRNA vaccine design capabilities to address this critical public health challenge. By integrating our proprietary stabilizing UTR sequence, we aim to create more stable and effective vaccines that can serve as a platform for future pandemic preparedness. This partnership exemplifies how academic innovation can directly contribute to global health security.”

Jimmy Gollihar, Chief of Translational Sciences, and Head of Antibody Discovery and Accelerated Protein Therapeutics (ADAPT) at Houston Methodist Research Institute, said: "At Houston Methodist Research Institute, we are applying advanced AI and computational immunology to dramatically shorten the time it takes to move from a viral genome to a rationally designed vaccine candidate. By working hand-in-hand with our partners in Korea and CEPI on this SFTS 'prototype' vaccine, we aim to design components that are both safer and capable of eliciting broad, durable protection, while generating insights that can be rapidly transferred to other Phenuiviruses. This collaboration brings the 100 Days Mission to life in the lab—building the tools, data, and know-how the world will need to respond at speed and scale when the next Disease X threat emerges."

CEPI and the consortium of Korea-based scientific partners are committed to enabling equitable access to the vaccine outputs of this partnership, in line with CEPI's Equitable Access Policy. CEPI has a right to fund further development of the vaccine beyond Phase I/II trials and the agreement ensures the establishment of investigational reserves to test the vaccine in clinical trials during an outbreak. If successful, the partners are committed to affordable pricing of the vaccine to enable access to the vaccine in low- and middle-income countries. Vaccine production capacity has also been allocated so that the vaccine can be manufactured and made available as quickly as possible. Should the vaccine be successful, the partners are committed to tech transfer of vaccine materials to manufacturers in low- and middle-income countries in Asia that may be affected by SFTS for local production and accelerated access to vaccine doses. Clinical trial data generated by this project will be published open access to benefit public health and research communities.

This joint partnership is the latest in a number of multimillion dollar R&D investments made by CEPI to support world-leading scientific partners in Korea advancing national and global epidemic and pandemic preparedness. The Korean Government has been working with CEPI since 2020 and recently contributed additional funding to advance CEPI's goals.

About the Korea Disease Control and Prevention Agency (KDCA)

The Korea Disease Control and Prevention Agency (KDCA) is the national public health authority of the Republic of Korea. Guided by its vision of "Toward a safer and healthier future," KDCA serves as the central governmental agency for evidence-based public health management and healthcare R&D.

KDCA's mission is to protect people from infectious diseases, reduce the national disease burden, and strengthen research capacity and preparedness to address health risks. Through its affiliated Korea National Institute of Health (KNIH), KDCA supports vaccine development, immunological research, and global partnerships for epidemic and pandemic preparedness.

As a trusted public health partner, KDCA works closely with international organizations, including WHO, CEPI, and IVI, to promote equitable access to vaccines and strengthen global health security.

Slogan: Ensuring healthy lives with KDCA, your most trusted partner. For more information, please visit <https://www.kdca.go.kr>.

About The International Vaccine Institute (IVI)

The International Vaccine Institute is an international organization dedicated to advancing vaccine discovery, development, and delivery—especially for vulnerable communities. Through research, partnerships, and innovation, IVI enhances global health, strengthens pandemic preparedness, and ensures equitable access to life-saving vaccines worldwide.

About ST Pharm

ST Pharm is a leading API CDMO specializing in antiviral treatments. Since the 1980s, the company has

supplied intermediates and APIs for Zidovudine, the world's first AIDS treatment, and in 2010, ST Pharm joined as a CDMO for Sofosbuvir, the world's first HCV treatment, providing API from clinical stage to commercialization.

Working with global pharmaceutical companies from the clinical stage, ST Pharm offers optimized process technology development, analytical methods, GMP validation, preparation of CMC documents for regulatory approval, and manufacturing of raw materials for commercialization. The company supports small-scale clinical samples and large-scale commercialization with globally certified GMP capabilities, holding cGMP certifications from the USA (FDA), EU, Korea, Japan, Australia, and WHO.

In 2001, ST Pharm expanded into the new drug CDMO business by developing oligonucleotide synthesis and purification technology, establishing itself as one of the top three players in the global market. Building on its mRNA platform technology developed since 2018, ST Pharm has secured proprietary patent technologies, including SmartCap® and STLNP®, and extended into circular RNA platform technology. The safety of and manufacturing capabilities for ST Pharm's SmartCap® technology was validated in a Phase I clinical study for COVID-19 in the early 2020s. This competitive edge was further strengthened by the acquisition of AnaPath, a European CRO company, in late 2019, enabling ST Pharm to provide one-stop services for the entire new drug development process. The company continues to expand its mRNA CDMO business through global contracts, such as a 25B KRW lipid supply agreement for LNP formulation, and ST Pharm continues to expand its mRNA CDMO business and collaborative partnerships from R&D to commercialization. For more information, please visit <https://www.stpharm.co.kr>.

About the RNA Biology Lab at Seoul National University (SNU)

The RNA Biology Lab at SNU is interested in all fields of RNA research. We especially focus on identifying regulatory RNAs and their associated factors, and dissecting their molecular mechanisms through a combination of sequencing, biochemistry, structural biology, and proteomic approaches. We also explore their functions in diverse biological contexts, including stem cells, cancer, viruses, and RNA-based therapies.

Fuente: CEPI. Disponible en <https://n9.cl/qlnqn>

Bangladesh's vaccine export dreams on hold over WHO certification

Dec 9. Nearly a decade on, Bangladesh remains grounded in the global vaccine race as its Directorate General of Drug Administration (DGDA) has yet to secure the World Health Organization's Maturity Level-3 (ML-3) certification — a key requirement for pre-qualification and large-scale export of locally produced vaccines.

WHO evaluates nine key areas for ML-3, including vaccine registration, clinical trials, market surveillance and control, knowledge management, quality maintenance, testing, legal authority, logistics support, and human resources. Despite progress, DGDA still has gaps in the regulatory framework, oversight capacity, scientific assessment, quality assurance, and integrated system activities.



Pharma industry experts say achieving ML-3 could unlock up to \$50 million in vaccine exports over the next five years, while creating new investment and employment opportunities.

Starting work in 2016, the DGDA has made progress across WHO-evaluated areas, but certification remains out of reach, leaving Bangladesh largely excluded from global vaccine markets and facing major challenges after its 2026 LDC graduation.

Vaccine production in Bangladesh began in 2011, and three pharmaceutical companies – Incepta, Popular, and Healthcare – produce 15-16 types of human and animal vaccines. Among them, only Incepta exports small quantities to a few African countries.

Widescale exports remain blocked without ML-3 certification, which signifies that a country's drug regulatory authority is robust, effectively managed, and internationally acknowledged.

A recent inter-ministerial committee report, seen by TBS, has also urged the DGDA to accelerate efforts to secure the certification and to consider alternative incentives for pharmaceutical exports as a replacement for cash support after the LDC graduation.

"Without this certification, WHO does not accept pre-qualification applications from Bangladeshi vaccine manufacturers, preventing them from exporting vaccines to more highly regulated countries," the report mentioned.

A former DGDA official, on condition of anonymity, told TBS, "Achieving ML-3 should be a top priority for Bangladesh, as it would elevate the country's pharmaceutical and vaccine industry to a new level of global acceptance."

"However, achieving it is by no means an easy target as it measures a country's ability to scientifically evaluate and regulate the quality of medicines, vaccines, and medical products, based on the same standards used by regulatory scientists in developed countries," he added.

Experts said that ML-3 is more than a certificate – it is a mark of trust. In October 2025, Ethiopia became the ninth country in Africa to achieve ML-3. Last December 2024, Senegal and Rwanda achieved this. This milestone highlights their strong commitment to ensuring safe, effective, and high-quality medical products for their populations.

As of late 2025, fewer than 70 countries worldwide have achieved ML-3 status for their national drug regulatory authorities in any capacity. India's vaccine regulatory systems (NRA and affiliated institutions) secured the certification in October 2024, earning top marks in several functions.

Abdul Muktedir, president of the Bangladesh Association of Pharmaceutical Industries (BAPI), said that to secure global export approvals, the DGDA must conduct rigorous oversight, inspect facilities, and ensure vaccines meet international standards. While local companies maintain high production standards, the DGDA has yet to achieve the required regulatory maturity.

He told TBS that the WHO has already pointed out gaps in DGDA's performance, highlighting the need for improvements in some areas.

DGDA's gaps in meeting ML-3 standards

The DGDA began work on achieving ML-3 certification in 2016. Officials said the biggest hurdle in achieving ML-3 in Bangladesh is human resources. Key units like Market Authorisation or Inspection, which ideally should have 20-30 skilled experts, currently have only 4-6. The long-standing shortage of regulatory scientists, training, international experience, and a strong technical team has slowed progress.

Additionally, gaps in laws, infrastructure, analytical capacity, and modern lab facilities have lowered scores in many functions. While Bangladesh has achieved 85-95% progress in some of the nine WHO-defined functions, a few remain at Level-1 or Level-2. ML-3 certification cannot be obtained until all functions reach at least Level-2, they said.

"Unless the DGDA makes substantial progress, Bangladesh cannot achieve ML-3 certification. To meet this goal, the health ministry could establish a dedicated monitoring cell and set a clear timeline to obtain WHO approval," said BAPI President Muktadir.

What DGDA officials say

Sources at the DGDA said that since March 2016, the agency has been taking steps to review its systems and build capacity according to WHO standards. Several initiatives were undertaken, including legal amendments, drafting guidelines, and improving human resources and infrastructure.

In 2021, a WHO expert team conducted an assessment based on nine regular functions and provided several key observations. Guidance was given to implement CAPA (Corrective and Preventive Actions) to address these gaps.

A former DGDA official said that while some CAPA measures have been implemented, gaps remain. The DGDA must complete them and formally invite the WHO for re-evaluation, where a new team will assess progress and readiness for ML-3 certification. The official added that delays could create major barriers for Bangladeshi vaccine exporters.

When asked, DGDA spokesperson Akter Hossain acknowledged some limitations due to government constraints and resource shortages, but said significant progress has been made.

"The agency is following WHO-standard procedures, implementing necessary laws, and allocating sufficient personnel," he said.

However, Akter Hossain could not confirm whether a formal letter has been sent to WHO for a re-audit or when a WHO team might visit next.

Industry leaders urge quick action

Pharma industry leaders have urged immediate steps to achieve ML-3, saying that despite producing large quantities of vaccines, Bangladesh cannot export them, and even a month's delay would be detrimental.

Md Zakir Hossain, secretary general of BAPI, told TBS, "Each batch of vaccines produced in Bangladesh must undergo separate testing and certification before it can enter international markets. For this, local laboratories need to meet global standards. Bangladesh must therefore achieve ML-3 promptly."

"Once the DGDA's labs are internationally accredited, WHO will recognise Bangladesh's certification globally, allowing vaccines to be tested, certified, and exported directly from domestic labs," he added.

Country's pharma industry at a glance

Incepta Pharmaceuticals, Popular Pharmaceuticals, and Healthcare Pharmaceuticals produce vaccines in Bangladesh. Incepta Pharmaceuticals began domestic vaccine production in 2011 and manufactures 16 important vaccines, including those for pneumonia, cervical cancer, and rabies. The company also produces 13 types of animal vaccines.

Additionally, Essential Drugs Company Limited (EDCL) is set to establish the country's first vaccine plant in Munshiganj at Tk3,115 crore. By 2027, the facility plans to produce 15 vaccines, including HPV (Human Papillomavirus), JE (Japanese Encephalitis), TCV (Typhoid Conjugate Vaccine), MCV (Meningococcal

Vaccine), bOPV-10 (Bivalent Oral Polio Vaccine), TD-10 (Tetanus and Diphtheria)/TT, cholera, and influenza vaccines. The government aims to meet domestic demand and export surplus vaccines internationally.

Key challenges in pharma export

Lack of clinical trial facilities: The inter-ministerial committee report noted that Bangladesh still lacks the capacity to conduct USFDA/EU-approved bioequivalence or clinical trials. As a result, domestic companies must send these tests to neighbouring countries, which is time-consuming and costly. Experts believe that establishing an internationally accredited CRO (Contract Research Organisation) in the country would facilitate exports.

However, DGDA sources said that 17-18 CROs are currently operating in Bangladesh, and capabilities for important studies like bioequivalence have already been developed, primarily by the private sector.

API Park progress is slower: The API Park, a specialised industrial zone dedicated to producing Active Pharmaceutical Ingredients (APIs), started in 2008 in Gozaria, Munshiganj, and is still not fully operational.

Due to irregular gas supply, companies setting up factories there cannot begin production. Industry analysts say that without reliable utility services, API production will never gain momentum.

NDTL must enable API testing: Although Bangladesh's National Drug Testing Laboratory (NDTL) is WHO-certified, it currently does not test API samples. Consequently, local API producers must send samples abroad for testing. The industry association and the inter-ministerial committee believe that if NDTL develops API testing capabilities, it would significantly reduce costs, lower import dependency, simplify the export process, and increase customer confidence.

Ensuring GMP and cGMP to boost export capacity: While domestic pharmaceutical companies maintain high production standards, global competition is increasing. Experts note that fully ensuring Good Manufacturing Practices (GMP) and current GMP (cGMP) will greatly enhance export potential.

Fuente: The Business Standard News. Disponible en <https://n9.cl/mkt3xw>

Sinergium paves the way for Latin American mRNA vaccines with new preclinical study

Dec 9. In a milestone for South America, scientists at Argentina's pharmaceutical company Sinergium Biotech will start preclinical testing of an innovative mRNA vaccine technology that could significantly strengthen regional pandemic preparedness and contain escalating disease outbreaks in their tracks.

Backed by a US \$1 million investment from CEPI, the exploratory project is among the first mRNA vaccine technologies to be assessed on the continent.

The research will evaluate Sinergium's mRNA platform—supported by the World Health Organization (WHO) and Medicines Patent Pool's mRNA Technology Transfer Programme, and by the Pan American Health Organization (PAHO)—in preclinical studies using H5N1 avian flu as a prototype pathogen. The Americas have reported recent outbreaks of the virus which is now widespread in farmed and wild birds globally. It has also been detected in several mammal species and in rare, sporadic human cases linked to direct exposure, underscoring its potential to spark a future pandemic.

Designed as a flexible, 'plug-and-play' platform, the mRNA technology, if successful, also aims to target other emerging viruses beyond H5N1 that pose threats to the region. The project therefore supports CEPI's mission, endorsed by the G7 and G20, to develop vaccines against a new 'Disease X'—a term used for an unknown pathogen with pandemic potential—within 100 days of viral discovery and stop outbreaks before they spiral into a pandemic.

Sinergium is working in collaboration with the Laboratory of Nucleic Acid immunotechnology, LITAN, from University of Buenos Aires-CONICET, on the project.

“mRNA vaccines transformed our response to COVID-19, but many nations still lack the capabilities, training and know-how to develop and produce these vaccines at scale, putting populations at risk of once again being pushed to the back of the queue during a future crisis,” explains Dr. Richard Hatchett, CEO of the Coalition for Epidemic Preparedness Innovations (CEPI). “Our partnership with Sinergium—CEPI’s first in Argentina—harnesses the power of this technology to pave the way for local scientists and public health experts to respond rapidly and equitably to future threats in the region, while building vital local R&D capacity and enhancing the continent’s health security.”

“This partnership with CEPI enables Sinergium to accelerate its efforts to consolidate mRNA research and manufacturing capabilities in Latin America. Sinergium has a strong commitment to public health and low- and middle-income countries (LMICs). Building collaborations is fundamental to expediting our research and development (R&D) pipeline and to impacting our people earlier,” states German Sanchez Alberti, Sinergium’s R&D Manager. “CEPI provides a comprehensive toolkit of technical expertise that can undoubtedly make a significant difference to our project not only for the region of the Americas, but also to expand it to other interested parties in LMICs.”

The CEPI-Sinergium partnership aligns with a broader joint commitment between CEPI and PAHO to strengthen research, manufacturing and clinical trial capacity across Latin America and the Caribbean.

“This announcement demonstrates that the Americas have the talent, capacity and expertise to advance the development and production of safe, effective and quality-assured vaccines,” said Tomás Pippo, Acting Chief of the Innovation and Regional Production Platform at PAHO. “This CEPI–Sinergium partnership, supported by PAHO, is a decisive step toward self-reliance that will increase vaccine production and reduce dependence on external suppliers, pushing the region toward more equitable protection against emerging pandemics.”

CEPI and Sinergium are committed to enabling equitable access to the outputs of their partnership, in line with CEPI’s Equitable Access Policy. CEPI holds the right to fund the technology further, should it be successful in the preclinical trials. Should a vaccine be developed using CEPI funding, CEPI and Sinergium are committed to vaccines being available first to at-risk populations when and where needed at an affordable price. Project results and data will be published open access to benefit the global scientific community.

Sinergium joined the WHO and MPP mRNA Technology Transfer programme in 2021. The global initiative seeks to create locally owned mRNA manufacturing capabilities in and for low- and middle-income countries and expand global access to mRNA vaccines. Sinergium also works with PAHO under a technical cooperation agreement to strengthen mRNA vaccine development and production in Argentina and across the Americas. The partnership aims to expand local capacities, support sustainable technology transfer and promote equitable access to vaccines in the region.



About Sinergium Biotech

Sinergium Biotech, an Argentine biopharmaceutical company, specialized in the research, development, production, and commercialization of vaccines and highly complex biopharmaceutical products. Sinergium has manufactured and distributed over 300 million doses of vaccines in Latin America's public markets in partnership with leading multinational companies, enabling access to the latest technologies for the population. Sinergium Biotech is a member of the mRNA Tech Transfer Hub established by the World Health Organization (WHO) and the Medicines Patent Pool (MPP) since 2021. The company is currently developing mRNA research and development (R&D) and Good Manufacturing Practices (GMP) capabilities in Argentina. Learn more at <https://www.sinergiumbiotech.com/en/>

About PAHO

The Pan American Health Organization (PAHO) works with the countries of the Americas to improve the health and quality of life of its population. Founded in 1902, it is the world's oldest international public health agency. It serves as the Regional Office of WHO for the Americas and is the specialized health agency of the Inter-American system (OAS). www.paho.org

Fuente: CEPI. Disponible en <https://n9.cl/glexn>

Europa desarrolla 29 vacunas para combatir las enfermedades entre humanos y animales

10 dic. El actual brote de peste porcina en España ha hecho saltar las alarmas sobre su posibilidad de contagio entre humanos. Sin embargo, pese a ser tremendamente letal para los animales, no se transmite a los humanos. Las personas, en este caso, pueden ser un transportador mecánico del virus sin que este evolucione, ya que el virus no puede acceder a las células humanas. Esto es, la peste porcina, no es una enfermedad zoonótica.

Una enfermedad zoonótica es una infección que se transmite de forma natural de los animales a los seres humanos, causada por agentes como virus, bacterias, parásitos u hongos. Esta transmisión puede ocurrir a través del contacto directo con animales, sus fluidos corporales (como la saliva o la orina), el consumo de alimentos o agua contaminados, o mediante vectores como mosquitos o garrapatas. Ejemplos comunes incluyen la rabia, la COVID-19 o la mpox.

Las enfermedades zoonóticas, transmitidas de animales a humanos, representan alrededor del 60% de las enfermedades infecciosas que afectan a los humanos. Causan aproximadamente 2,7 millones de muertes y 2.500 millones de enfermedades cada año, con importantes implicaciones para la producción ganadera y la seguridad alimentaria (142). Según la Organización Mundial de la Salud (OMS), hay más de 200 tipos conocidos de zoonosis, y si bien es crucial implementar medidas sólidas para predecir y prepararse para los brotes de enfermedades zoonóticas, prevenir su aparición es igualmente esencial. Así, las grandes farmacéuticas están abordando este desafío mediante la investigación de vacunas contra los coronavirus, el dengue, la gripe pandémica, la enfermedad de Lyme, la rabia, la enfermedad por el virus Nipah, la mpox, la salmonelosis y la fiebre amarilla.

Los coronavirus centran la carrera de vacunas

La última revisión del *pipeline* de las compañías que forman parte de *Vaccines Europe* muestra que, en la actualidad, con datos de agosto de 2025, hay 29 vacunas en desarrollo en Europa contra algún tipo de zoonosis. Los coronavirus centran la cartera de vacunas de la industria europea, con 13 inyecciones en



desarrollo —pediátricas (2), adultos (4), adultos mayores: (2), adultos + adultos mayores (4), pediátricos + adultos + adultos mayores: (1)—. De estas, cuatro estarían en fase I, tres en fase II, dos en fase III y cuatro en ‘revisión regulatoria’.

Tras los coronavirus, las vacunas contra la gripe pandémica y la enfermedad de Lyme son los siguientes grupos en el que más se están volcando las farmacéuticas si hablamos de inyecciones contra la zoonosis. En el caso de la gripe pandémica, en la actualidad hay ocho vacunas en desarrollo –adultos (1), adultos + adultos mayores (7)—. Tres se encuentran en fase I y cinco en fase II. Para la enfermedad de Lyme, transmitida a los humanos por la picadura de garrapatas infectadas y para la cual actualmente aún no hay ninguna vacuna, los laboratorios desarrollan tres inyecciones: pediátrica + adultos: (1), adultos (2). Dos de ellas están en fase I y una en fase III.

Para el resto de zoonosis hay una vacuna en desarrollo: la rabia, la enfermedad por el virus Nipah, mpox, el dengue y la fiebre amarilla. De estas, las que se encuentran en fase más avanzada son las de la rabia, el dengue y la fiebre amarilla, las tres en fase III. Por el contrario, la inyección en desarrollo para la enfermedad por el virus Nipah se encuentra en fase I y la del mpox en fase II. Precisamente, España continúa siendo el país de Europa con más casos registrados de mpox —antes denominada viruela del mono—, alcanzando los 8.632 hasta abril de 2025, según el último informe del Centro Europeo para la Prevención y Control de Enfermedades (ECDC, por sus siglas en inglés).

91 inyecciones en desarrollo

Más allá de las vacunas contra la zoonosis, Europa tiene 91 vacunas en desarrollo en fase clínica, según la última revisión del pipeline de las 16 compañías que forman parte de *Vaccines Europe*, realizada en agosto de 2025. Esas 91 inyecciones, incluyen 86 vacunas profilácticas, dos terapéuticas (dirigidas contra agentes infecciosos) y tres anticuerpos monoclonales (mAb) profilácticos. Si bien la mayoría de los candidatos están dirigidos a combatir infecciones virales, una parte considerable se centra en patógenos bacterianos. Así, los objetivos más frecuentes de las vacunas candidatas son la gripe estacional (13), seguida de la gripe pandémica (8), la enfermedad neumocócica (8), la COVID-19 (7) y el virus respiratorio sincitial (6).

Fuente: El Liberal. Disponible en <https://n9.cl/s9r08c>



VacciMonitor es una revista dedicada a la vacunología y temas afines como Inmunología, Adyuvantes, Infectología, Microbiología, Epidemiología, Validación, Aspectos regulatorios, entre otros. Arbitrada, de acceso abierto y bajo la Licencia *Creative Commons* está indexada en:

EBSCO
Information Services



DOAJ DIRECTORY OF
OPEN ACCESS
JOURNALS



reDalyC.org



HINARI
Research in Health

latindex
Sistema Regional de Información en Línea para
Revistas Científicas de América Latina, el Caribe,
España y Portugal

SeCiMed

Síguenos en redes sociales



@vaccimonitor



@finlayediciones



FINLAY
EDICIONES

IFV INSTITUTO
FINLAY DE
VACUNAS

Artículos científicos publicados en Medline

Filters activated: (vaccine[Title/Abstract]) AND (("2025/12/02"[Date - Publication] : "2025/12/10"[Date - Publication])) 325 records

[Locking down IgE.](#)

Della Libera D, Denha S, Koenig JFE. *Sci Transl Med.* 2025 Dec 3;17(827):eaec0500. doi: 10.1126/scitranslmed.aec0500. Epub 2025 Dec 3. PMID: 41337544

[Updated Evidence for Covid-19, RSV, and Influenza Vaccines for 2025-2026.](#)

Scott J, Abers MS, Marwah HK, McCann NC, Meyerowitz EA, Richterman A, Fleming DF, Holmes EJ, Moat LE, Redepenning SG, Smith EA, Stoddart CJ, Sundaram ME, Ulrich AK, Alba C, Anderson CJ, Arpey MK, Borre E, Ladines-Lim J, Mehr AJ, Rich K, Watts C, Basta NE, Jarolimova J, Walensky RP, Dugdale CM. *N Engl J Med.* 2025 Dec 4;393(22):2221-2242. doi: 10.1056/NEJMsa2514268. Epub 2025 Oct 29. PMID: 41160817

[The relationship between the immunogenicity and reactogenicity of vaccines: A narrative review.](#)

Gromer DJ, Kalash S, Tanios R, Roupheal N. *Vaccine.* 2025 Dec 5;68:127892. doi: 10.1016/j.vaccine.2025.127892. Epub 2025 Oct 28. PMID: 41161041

[BronchStop Study Protocol, Season 2.](#)

O'Hagan S, Cunningham S, Drysdale SB, Groves HE, Hunt S, Iskander D, Liu X, Lyttle MD, Mpamhanga CD, Waterfield T, C Williams T, Marlow R, Roland D. *NIHR Open Res.* 2025 Dec 2;5:85. doi: 10.3310/nihropenres.14097.2. eCollection 2025. PMID: 41211542

[Microorganism delivery of cancer vaccines.](#)

Han F, Yin L, Qu L, Han S, Sun M, Xi Y. *J Control Release.* 2025 Dec 10;388(Pt 1):114288. doi: 10.1016/j.jconrel.2025.114288. Epub 2025 Oct 2. PMID: 41045964

[Data-Independent Immunopeptidomics Discovery of Low-Abundant Bacterial Epitopes.](#)

Willems P, Staes A, Miret-Casals L, Demichev V, Devos S, Impens F. *J Proteome Res.* 2025 Dec 5;24(12):6295-6304. doi: 10.1021/acs.jproteome.5c00449. Epub 2025 Oct 30. PMID: 41166551

[Nano-strategy empowering trained immunity in vaccines.](#)

Wang L, Zhang Y, Wang S, Shen X, Zhang J, You J, Luo L. *J Control Release.* 2025 Dec 10;388(Pt 2):114359. doi: 10.1016/j.jconrel.2025.114359. Epub 2025 Oct 27. PMID: 41161495

[A multivalent nanoparticle vaccine elicits potent neutralizing antibody response against monkeypox virus.](#)

Yuan RY, Li MJ, Lin XB, Yu F, Ding Y, Yang Y, Shen CG, Zhang H, Kang YF. *J Control Release.* 2025 Dec 10;388(Pt 1):114339. doi: 10.1016/j.jconrel.2025.114339. Epub 2025 Oct 17. PMID: 41110472

[Association between vaccine uptake and SARS-CoV-2 infection among staff at a jail and prison in the USA.](#)

Bailey A, Kang AW, Stagoff-Belfort C, Martin RA. *Int J Prison Health* (2024). 2025 Dec 8;21(4):510-520. doi: 10.1108/IJOPH-10-2024-0058. PMID: 40787786

[Elastin-like peptides for efficient and safe delivery of mRNA.](#)

Li F, Wang Q, Wang T, Xiong C, Chen Z, Ouyang H, Lou X, Xia F, Wang S, Wu M, Dai J. *J Control Release*. 2025 Dec 10;388(Pt 1):114337. doi: 10.1016/j.jconrel.2025.114337. Epub 2025 Oct 14. PMID: 41101699

[Monocyte-eosinophil signaling axis promotes vaccine-mediated protection against SARS-CoV-2.](#)

Moore KM, Foster SL, Kar M, Floyd KA, Elrod EJ, Williams ME, Velden JV, Ellis M, Malik A, Wali B, Lapp S, Metz A, Bosing SE, Menachery VD, Seder RA, Amara RR, Kohlmeier JE, Grakoui A, Suthar MS. *PLoS Pathog*. 2025 Dec 2;21(12):e1013752. doi: 10.1371/journal.ppat.1013752. eCollection 2025 Dec. PMID: 41329757

[Immunology of RNA-based vaccines: The critical interplay between inflammation and expression.](#)

Tregoning JS, Wang Z, Sridhar S, Shattock RJ, DeRosa F. *Mol Ther*. 2025 Dec 3;33(12):5945-5964. doi: 10.1016/j.ymthe.2025.09.011. Epub 2025 Sep 8. PMID: 40926412

[An alphavirus vaccine development utilizing RNA replication-defective strategy.](#)

Zhang Z, Huang J, Li Z, Deng C, Zhang H, Zhang B, Zhang Y. *Mol Ther*. 2025 Dec 3;33(12):6282-6297. doi: 10.1016/j.ymthe.2025.08.051. Epub 2025 Sep 2. PMID: 40898615

[HIV infection and immunosenescence: challenges and intervention strategies.](#)

Jin J, Xu Q, Zhang X, Zhu A, Xia W, Moog C, Chan ASW, Zhang T, Su B. *BMC Med*. 2025 Dec 2. doi: 10.1186/s12916-025-04545-6. Online ahead of print. PMID: 41331594

[Ocular manifestations of vaccine-preventable diseases: A comprehensive review.](#)

McCarthy K, Silkiss RZ. *Vaccine*. 2025 Dec 5;68:127900. doi: 10.1016/j.vaccine.2025.127900. Epub 2025 Nov 7. PMID: 41205407

[Human metapneumovirus: Insights into immune evasion, pathogenesis and liposome-based vaccine strategies.](#)

Alhumaydhi FA, Khan MH, Khan MA. *Microb Pathog*. 2025 Dec 3;211:108224. doi: 10.1016/j.micpath.2025.108224. Online ahead of print. PMID: 41349730

[mRNA vaccine based on high-frequency prevalent antigens provides broad protection against influenza B virus.](#)

Cheng Z, Sun Y, Bai Y, Wu X, Sun Z, Zhang Q, Huang W, Ma J, Zhao C. *Mol Ther Nucleic Acids*. 2025 Aug 21;36(4):102690. doi: 10.1016/j.omtn.2025.102690. eCollection 2025 Dec 9. PMID: 41049090

[Vaccine hesitancy among migrant populations in Europe: A mixed-methods systematic review.](#)

Khuu E, Moussaoui S, Vignier N, Bonello K, Archer E. *Vaccine*. 2025 Dec 5;68:127954. doi: 10.1016/j.vaccine.2025.127954. Epub 2025 Nov 6. PMID: 41202609

[Awareness, knowledge, and beliefs about Human Papillomavirus and its vaccine among Egyptian medical students: A cross-sectional national study.](#)

Elmanzlawey M, Terra M, Baklola M, Ahmed Y, Abuelela M, Al-Kurd IN, El-Gilany AH. *PLoS One*. 2025 Dec 5;20(12):e0337411. doi: 10.1371/journal.pone.0337411. eCollection 2025. PMID: 41348754

['They're not going to tell you everything': A qualitative study with HPV vaccine hesitant parents and caregivers in the northeast and southeast U.S.](#)

Cooper SC, Williams IV, Porter A, Presti C, Mikhaylov A, King A, Memaj I. *Vaccine*. 2025 Dec 5;68:127948. doi: 10.1016/j.vaccine.2025.127948. Epub 2025 Nov 13. PMID: 41237541

[B cell-reactive neoantigens boost antitumor immunity.](#)

Kim JY, An J, Kim S, Jo HY, Lee EJ, Kim M, Cha H, Lee SH, Park HY, Kim SC, Cho DY, Shin I, Chang S, Choi JK. *Sci Adv*. 2025 Dec 5;11(49):eadx8303. doi: 10.1126/sciadv.adx8303. Epub 2025 Dec 3. PMID: 41337574

[Construction and evaluation of a chimeric vaccine against Clostridium perfringens type a of sika deer.](#)

Zeng S, Fu Z, Wang Y, Jiang S, Song C, Hao G, Wang J, Cao S, Wang X, Liu Y, Liu Y, Yang S, Liu Z. *Vaccine*. 2025 Dec 5;68:127899. doi: 10.1016/j.vaccine.2025.127899. Epub 2025 Oct 28. PMID: 41161044

[COVID-19 vaccine attitudes and news consumption patterns among pregnant and postpartum individuals in an urban setting.](#)

Nikodijevic I, Sagar K, Fiuza A, Krishna T, King A, Getz K, Campbell D. *Case Rep Perinat Med*. 2025 Dec 3;14(1):20250005. doi: 10.1515/crpm-2025-0005. eCollection 2025 Jan. PMID: 41341792

[Self-regulating microfluidic system for lipid nanoparticle production.](#)

Reus E, Savinsky J, Wennemaring S, Käsbaach J, Kerkhoffs F, Kehrein J, Rauer SB, Lühmann T, Adams AC, Wessling M, Magnus J, Meinel L. *J Control Release*. 2025 Dec 10;388(Pt 2):114370. doi: 10.1016/j.jconrel.2025.114370. Epub 2025 Nov 1. PMID: 41183573

[Real-world utilization and potential clinical and economic value of recombinant zoster vaccine and select preventive services recommended for older adults in the United States.](#)

Gatwood J, Gomez-Espinosa E, Fusco N, Stempniewicz N, Singer D. *Vaccine*. 2025 Dec 6;71:128015. doi: 10.1016/j.vaccine.2025.128015. Online ahead of print. PMID: 41353819

[Immunogenicity and safety of concomitant vaccines given with 20-valent pneumococcal conjugate vaccine in healthy infants.](#)

Senders S, Korbal P, Kline M, Tamimi N, Thompson A, Drozd J, Cutler MW, Giardina PC, Trammel J, Lei L, Peng Y, Watson W, McElwee K. *Vaccine*. 2025 Dec 5;68:127916. doi: 10.1016/j.vaccine.2025.127916. Epub 2025 Nov 3. PMID: 41187484

[Long-term neutralization capacity of vaccine and breakthrough infection induced SARS-CoV-2 specific antibodies against omicron subvariants BA.2, XBB.1.5, and JN.1.](#)

Reinholm A, Khan H, Laakso T, Maljanen S, Jalkanen P, Gunell M, Kallonen T, Österlund P, Ritvos O, Nousiainen A, Häkkinen HK, Pakkanen SH, Välimaa H, Kantele A, Lempainen J, Julkunen I, Kolehmainen P, Kakkola L. *Vaccine*. 2025 Dec 5;68:127894. doi: 10.1016/j.vaccine.2025.127894. Epub 2025 Oct 28. PMID: 41161045

[Ionic liquids revolutionizing drug delivery: Recent advances and emerging opportunities.](#)

Wu X, Tai Z, Li Y, Zhu C, Yu Q, Yin B, Chu X, Wang H, Zhu Q, Chen Z. *J Control Release*. 2025 Dec 10;388(Pt 2):114355. doi: 10.1016/j.jconrel.2025.114355. Epub 2025 Oct 25. PMID: 41326238

[Adaptive clinical trial designs for rapid vaccine development: Developing country vaccine manufacturers' perspective.](#)

Mahajan M, Martin LB, Gaurav K, Suri RK. *Vaccine*. 2025 Dec 5;68:127890. doi: 10.1016/j.vaccine.2025.127890. Epub 2025 Nov 1. PMID: 41176966

[Advances in population-based interventions to control falciparum malaria.](#)

Glossop SE, Peto TJ, Adhikari B. *Trans R Soc Trop Med Hyg*. 2025 Dec 5;119(12):1316-1323. doi: 10.1093/trstmh/traf088. PMID: 40973129

[Development and qualification of a multiplexed immunoassay to assess the immunogenicity of Shigella vaccines.](#)

Rhyne PW, Sunshine J, Hogrefe W, Roscia G, Molesti E, Manenti A, Semplici C, Rossi O, Mancini F, Micoli F, Medina F, Kaminiski RK, Noble R, Alaimo C, Brighenti S, Montomoli E, Frahm N. *Vaccine*. 2025 Dec 5;68:127896. doi: 10.1016/j.vaccine.2025.127896. Epub 2025 Nov 1. PMID: 41176970

[Siglec14-TLR2 axis mediates anti-HIV-1 immunity in macrophages.](#)

Shi M, Lu B, Wei W, Chen S, Liu J, Hu X, Chen R, Yuan Z, Su J, Chen X, Tang Q, Wu Y, Ye L, Liang H, Jiang J. *Int Immunopharmacol*. 2025 Dec 3;166:115595. doi: 10.1016/j.intimp.2025.115595. Epub 2025 Sep 24. PMID: 40997501

[Effectiveness of maternal vaccines and long-acting monoclonal antibodies against respiratory syncytial virus disease burden in early life: a scoping review of dynamic modelling studies.](#)

Bicego A, Wood JG, Newall AT, Hogan AB. *Vaccine*. 2025 Dec 5;68:127868. doi: 10.1016/j.vaccine.2025.127868. Epub 2025 Nov 7. PMID: 41205402

[Associations between trust in public health, vaccine confidence, and COVID-19 vaccination among American adults.](#)

Garvey K, Salmon DA, Dudley MZ, Brewer J, Schuh HB. *Vaccine*. 2025 Dec 5;68:127955. doi: 10.1016/j.vaccine.2025.127955. Epub 2025 Nov 9. PMID: 41213185

[Systematic review and meta-analysis of the non-specific and broader impact of respiratory vaccines on acute lower respiratory infections in young children.](#)

Holland C, Oakes D, Sarna MM, Chai K, Ng L, Moore HC. *BMJ Open*. 2025 Dec 4;15(12):e100476. doi: 10.1136/bmjopen-2025-100476. PMID: 41344710

[Immunogenicity and protective efficacy of canine enteric coronavirus vaccine: a systematic review and meta-analysis.](#)

Leung C, Syeda A, Zdanowicz A. *J Am Vet Med Assoc*. 2025 Dec 5:1-7. doi: 10.2460/javma.25.08.0539. Online ahead of print. PMID: 41349216

[Biomimetic liposomes in drug delivery: from design mechanisms to applications.](#)

Li Z, Li M, Lu J. *Chem Soc Rev*. 2025 Dec 9. doi: 10.1039/d5cs00440c. Online ahead of print. PMID: 41364452

[Safety and Efficacy of Respiratory Syncytial Virus Vaccination in Older Adults: Systematic Review and Meta-Analysis of Randomized Controlled Trials.](#)

Xiao Q, Yang R, Zhang L, Tian Y, Wang X, Li W. *JMIR Public Health Surveill*. 2025 Dec 4;11:e74271. doi: 10.2196/74271. PMID: 41344873

[Pediatric vaccine information on YouTube: A nursing-led content analysis of quality and vaccine hesitancy.](#)

Akca Sumengen A, Cakir GN, Tekkas-Kerman K, Semerci Sahin R, Subasi DO, Ayaz V. *J Pediatr Nurs*. 2025 Dec 5;86:491-501. doi: 10.1016/j.pedn.2025.11.048. Online ahead of print. PMID: 41352157

[The experience of seeking & granting special medical exemptions for mandated vaccines: A scoping review.](#)

Devsam B, Bortolussi K, Tippins J, Vasiliadis S, Danchin M, O'Neill J, Attwell K, Kaufman J. *Vaccine*. 2025 Dec 5;68:127935. doi: 10.1016/j.vaccine.2025.127935. Epub 2025 Nov 13. PMID: 41237540

[Impact of COVID-19 Vaccine Mandates on COVID-19 Incidence and Deaths in Saskatchewan, Canada: Findings From the First Year Following Vaccine Rollout.](#)

Adeyinka DA, Olakunde BO, Ologunagba BO, Oladimeji O, Oluwole O. *Disaster Med Public Health Prep*. 2025 Dec 3;19:e339. doi: 10.1017/dmp.2025.10261. PMID: 41330894

[Interstitial drug delivery system: Physiological basis and \(pre\)clinical progress.](#)

Zhao A, Tang Y, Shi X, Fan W. *J Control Release*. 2025 Dec 10;388(Pt 1):114275. doi: 10.1016/j.jconrel.2025.114275. Epub 2025 Sep 26. PMID: 41016477

[Summary of human West Nile virus vaccine meeting, 2024: Investigating barriers to development.](#)

Nett RJ, Brault AC, Lambert AJ, Agnihothram S, Barrett ADT, Barzon L, Clements DE, Durbin A, Kretschmer M, Monath TP, Mura M, Pierson TC, Prutzman K, Slifka MK, Suthar MS, Whitehead SS, Staples JE. *Vaccine*. 2025 Dec 5;68:127938. doi: 10.1016/j.vaccine.2025.127938. Epub 2025 Nov 5. PMID: 41197444

[Noninferiority of One HPV Vaccine Dose to Two Doses.](#)

Kreimer AR, Porras C, Liu D, Hildesheim A, Carvajal LJ, Ocampo R, Romero B, Gail MH, Cortes B, Sierra MS, Coronado K, Sampson J, Coto C, Dagnall CL, Mora D, Kemp TJ, Zuniga M, Pinto LA, Barrientos G, Schussler J, Estrada Y, Montero C, Avila C, Ruggieri D, Cyr JT, Chanock S, Lowy DR, Schiller JT, Herrero R. *N Engl J Med*. 2025 Dec 3. doi: 10.1056/NEJMoa2506765. Online ahead of print. PMID: 41337735

[COVID-19 vaccine acceptance in pregnant women: A survey based on the health belief model.](#)

Zizza A, Recchia V, Guido M, Banchelli F, Negro P, Tinelli A. *Int J Gynaecol Obstet*. 2025 Dec 3. doi: 10.1002/ijgo.70702. Online ahead of print. PMID: 41334633

[Influenza, pneumococcal, COVID-19 vaccine willingness and uptake with influencing factors in 38,184 chinese older adults in 2022: a nationwide cross-sectional study.](#)

Liu D, Zhang Y, Lei J, Li J, Xiang C, Peng Y, Hu Y, Fang L, Feng L, Shan G, Ding Y, Gao Q, Yang T; Respiratory Disease Prevention and Control of Chinese Preventive Medicine Association. *Vaccine*. 2025 Dec 5;68:127961. doi: 10.1016/j.vaccine.2025.127961. Epub 2025 Nov 5. PMID: 41197445

[High-throughput pseudovirus neutralisation maps the antigenic landscape of influenza A/H1N1 viruses.](#)

An Y, Ding X, Tian Y, Zhang M, Ma Y, Wu X, Cai M, Huang L, Wang Y, Tong J, Yu Y, Zhao C, Huang W, Wu A, Wang Y. *EBioMedicine*. 2025 Dec 2;122:106047. doi: 10.1016/j.ebiom.2025.106047. Online ahead of print. PMID: 41337936

[mRNA therapeutics: Transforming medicine through innovation in design, delivery, and disease treatment.](#)

Ige MA, Ren X, Yang Y, Zhang H, Shen C, Jiang Y, Li J, Wan X. *Mol Ther Nucleic Acids*. 2025 Sep 20;36(4):102721. doi: 10.1016/j.omtn.2025.102721. eCollection 2025 Dec 9. PMID: 41210584

[Corrigendum to "Long-term neutralization capacity of vaccine and breakthrough infection induced SARS-CoV-2 specific antibodies against omicron subvariants BA.2, XBB.1.5, and JN.1" \[*Vaccine* 68 \(2025\) 127894\].](#)

Reinholm A, Khan H, Laakso T, Maljanen S, Jalkanen P, Gunell M, Kallonen T, Österlund P, Ritvos O, Nousiainen A, Häkkinen HK, Pakkanen SH, Välimaa H, Kantele A, Lempainen J, Julkunen I, Kolehmainen P, Kakkola L. *Vaccine*. 2025 Dec 5;68:127939. doi: 10.1016/j.vaccine.2025.127939. Epub 2025 Nov 7. PMID: 41205405

[A synthesis of economic data from randomized trials of recipient-focused interventions to increase vaccine uptake.](#)

Hamashima Y, Breheny K, Davies SR, Dawson S, Thornton ZA, Aiton E, Caldwell DM, Christensen H, Higgins JPT, Yates J, Letley L, French CE. *Vaccine*. 2025 Dec 5;68:127906. doi: 10.1016/j.vaccine.2025.127906. Epub 2025 Nov 4. PMID: 41192046

[Development of a broad-spectrum multiepitope vaccine against dabié bandavirus through immunoinformatic approaches.](#)

Naveed M, Asim M, Aziz T, Saqi MM, Rehman HM, Al-Megrin WAI, Shami A, Alwethaynani MS, Fallatah D, Al-Joufi FA, Khan AA. *Int Immunopharmacol*. 2025 Dec 3;166:115492. doi: 10.1016/j.intimp.2025.115492. Epub 2025 Sep 16. PMID: 40961753

[The role of non-cancer cell infections in oncolytic virus therapy.](#)

Rajwani J, Mahoney DJ. *Semin Immunol*. 2025 Dec 2;81:101998. doi: 10.1016/j.smim.2025.101998. Online ahead of print. PMID: 41338023

[rWTC-MBTA Vaccine, Alone and Enhanced with Anti-PD1, Elicits Immune Responses against CNS and Peripheral B-Cell Lymphoma.](#)

Zhang Y, Ye J, Sun M, Chakraborty S, Valenzuela A, Chen S, Xue Q, Shi W, Pacak K, Wang H, Zhuang Z. *Adv Sci (Weinh)*. 2025 Dec 8:e11605. doi: 10.1002/advs.202511605. Online ahead of print. PMID: 41360751

[Case Studies of Rapid Community Assessment Implementation to Improve Vaccine Confidence and Demand During the COVID-19 Vaccine Rollout.](#)

Fraze JL, Asif AF, Zajac J. *J Public Health Manag Pract*. 2025 Dec 8. doi: 10.1097/PHH.0000000000002308. Online ahead of print. PMID: 41364471

[Effect of antiserum against recombinant EGr_09888 on the in vitro development of *Echinococcus granulosus* protoscoleces.](#)

Pan XY, Kamali W, Liu S, Ban WL, Aierken K, Wang BJ, Mu YH, Teliewuhan M, Zhao L, Zhang Z. *Parasitol Res*. 2025 Dec 4;124(12):150. doi: 10.1007/s00436-025-08604-y. PMID: 41345681

[The rpZDIII vaccine triggers vertical protection on newborn mice against zika virus infection.](#)

Miranda-López A, Castillo CG, González-Ortega O, Romero-Maldonado A, Comas-García M, Rosales-Mendoza S. *Vaccine*. 2025 Dec 5;68:127941. doi: 10.1016/j.vaccine.2025.127941. Epub 2025 Nov 7. PMID: 41205403

[In-silico epitope-based vaccines design: progress, challenges and the road ahead.](#)

Cernuto F, Maleki A, Russo G, Di Salvatore V, Pappalardo F. *Expert Opin Drug Discov*. 2025 Dec 7:1-12. doi: 10.1080/17460441.2025.2599178. Online ahead of print. PMID: 41354625

[Maternal vaccine delivery costs in South Asian settings: estimates from Bangladesh and Nepal.](#)

Baral R, Fleming JA, Gautam A, Islam MM, Shrestha G, Khan S, Kashem MM, Kumar S, Lal B, Mehedi K, Nasir IR, Newhouse L, Routray S, Saha JK, Sultana S, Uranw S, Pecenka C. BMC Public Health. 2025 Dec 3. doi: 10.1186/s12889-025-25786-3. Online ahead of print. PMID: 41331727

[Timely vaccine strain selection and genomic surveillance improve evolutionary forecast accuracy of seasonal influenza A/H3N2.](#)

Huddleston J, Bedford T. Elife. 2025 Dec 4;14:RP104282. doi: 10.7554/eLife.104282. PMID: 41343299

[Selected infectious disease topics in the ED: Optimizing logistics to optimize care.](#)

Flack T, Howington GT. Am J Health Syst Pharm. 2025 Dec 5;82(24):1353-1361. doi: 10.1093/ajhp/zxaf126. PMID: 40459367

[America's Vaccine Policy Whiplash-Finding the Way Forward.](#)

Navin MC, Ross LF. JAMA. 2025 Dec 2;334(21):1877-1878. doi: 10.1001/jama.2025.19088. PMID: 41032401

[A "sweeter" approach to cancer immunotherapy: Glycopolymers as diverse tools for immune modulation.](#)

Hulugalla K, Abodunrin OD, Anderson J, Smith AE, Werfel T. J Control Release. 2025 Dec 10;388(Pt 2):114372. doi: 10.1016/j.jconrel.2025.114372. Epub 2025 Nov 6. PMID: 41205704

[HPV vaccine knowledge gaps and vaccination intent: a cross-sectional study of vocational students in Southern Xinjiang of China in 2023.](#)

Abudurexiti G, Muhetaer K, Yang J, Zhuo Q, Qi T, Saimi Z, Ouyang Y, Yu H, Yilamujiang P, Adili N, Nuermaimaiti N, Abulizi G, Rezhake R. BMC Public Health. 2025 Dec 3. doi: 10.1186/s12889-025-25209-3. Online ahead of print. PMID: 41339820

[COVID-19 vaccine uptake and infection among pregnant women in Libya: a cross-sectional study.](#)

Abusrewil S, Sherif M, Alhudiri I, Ebrahim F, Almgadmi A, Gawass M, Gahwagi M, Elzagheid A. BMC Pregnancy Childbirth. 2025 Dec 2;25(1):1289. doi: 10.1186/s12884-025-08289-2. PMID: 41331626

[Prioritization of future new vaccines introduction: The experience of the Ethiopian National Immunization Technical Advisory Group.](#)

Memirie ST, Teka T, Mekasha A, Alemayehu T, Kokobie MA, Tefera YL, Abebe W, Kaba M, Mohamed N, Guidod F, Senouci K. Vaccine. 2025 Dec 5;68:127932. doi: 10.1016/j.vaccine.2025.127932. Epub 2025 Nov 1. PMID: 41176965

[Vaccination utilization in patients with pulmonary hypertension.](#)

Estrada RA, Baher H, Andrade L, Zabelny K, Sahay S, Anzueto AR, Restrepo MI. Respir Med. 2025 Dec 3;251:108549. doi: 10.1016/j.rmed.2025.108549. Online ahead of print. PMID: 41349651

[FDA claims 10 child deaths caused by covid-19 vaccine, vows to tighten vaccine approvals.](#)

Logan M. BMJ. 2025 Dec 2;391:r2546. doi: 10.1136/bmj.r2546. PMID: 41330609

[Tattoo ink induces inflammation in the draining lymph node and alters the immune response to vaccination.](#)

Capucetti A, Falivene J, Pizzichetti C, Latino I, Mazzucchelli L, Schacht V, Hauri U, Raimondi A, Virgilio T, Pulfer A, Mosole S, Grau-Roma L, Bäuml W, Palus M, Renner L, Ruzek D, Goldman Levy G, Foerster M, Chahine K, Gonzalez SF. *Proc Natl Acad Sci U S A*. 2025 Dec 2;122(48):e2510392122. doi: 10.1073/pnas.2510392122. Epub 2025 Nov 25. PMID: 41289395

[Early adoption patterns of the recombinant zoster vaccine: real-world versus clinical trial populations.](#)

D Gräf D, Peker DS, Hallgreen CE, Andersen M. *Infect Dis (Lond)*. 2025 Dec 3:1-13. doi: 10.1080/23744235.2025.2589360. Online ahead of print. PMID: 41335379

[Hemagglutinin-displaying influenza nanovaccines: progress and promise.](#)

Kim D, Duffy A, Wee A, Hammond H, Sangappa A, Kane RS. *Nanomedicine (Lond)*. 2025 Dec 8:1-22. doi: 10.1080/17435889.2025.2598329. Online ahead of print. PMID: 41355431

[Attitudes toward and regional utilization of age-specific vaccinations from the age of 60 in Saxony-Anhalt.](#)

Nestler S, Walter S, Hrudey I, Hasenpusch C, Holstiege J, Bätzing J, March S, Swart E, Stallmann C. *Res Health Serv Reg*. 2025 Dec 3;4(1):19. doi: 10.1007/s43999-025-00079-9. PMID: 41331174

[Systematic annotation and analysis of susceptibility genes associated with vaccine adverse events.](#)

Song Q, Su J, Pan C, Zhang X, Yang B, He Y, Xie J. *BMC Med Genomics*. 2025 Dec 8. doi: 10.1186/s12920-025-02292-4. Online ahead of print. PMID: 41361427

[Hepatitis B virus vaccination in people with HIV: what's new?](#)

Gispen F, Luetkemeyer AF, Marks KM. *Curr Opin HIV AIDS*. 2025 Dec 8. doi: 10.1097/COH.0000000000001001. Online ahead of print. PMID: 41353569

[Establishing long-lasting vaccine immunity: insights from mRNA and adjuvanted protein platforms.](#)

Pineda-Peña AC, Hasegawa K, Pavot V, Berry C, Combadière B, Cortes-Garcia G, McDermott AB, Sridhar S. *NPJ Vaccines*. 2025 Dec 8. doi: 10.1038/s41541-025-01302-x. Online ahead of print. PMID: 41360809

[Heterogeneity in seasonal influenza vaccination opportunity and disease risk during pregnancy and in infants <6 months.](#)

Morris SE, O'Halloran A, Sundaresan D, Dawood FS, Ellington S, Grohskopf LA, Olson SM, Borchering RK, Bozio CH, Reed C, Biggerstaff M. *Vaccine*. 2025 Dec 5;68:127887. doi: 10.1016/j.vaccine.2025.127887. Epub 2025 Nov 1. PMID: 41176967

[Digital Health Communication and Vaccine Confidence: Secondary Analysis of Aggregated Randomized Brand Lift Studies in Mexico.](#)

Muñoz Cordero B, Romero Feregrino R, Romero Feregrino R, Romero Cabello R, Rocha Rocha VM, Martínez-Medina R, Fernández Urrutia LA. *JMIR Form Res*. 2025 Dec 8. doi: 10.2196/82889. Online ahead of print. PMID: 41364336

[When to vaccinate for seasonal influenza: check the peak forecast.](#)

Spencer JA, Smith MZ, Osthus D, Alexander PC, Del Valle SY. BMC Public Health. 2025 Dec 10. doi: 10.1186/s12889-025-25760-z. Online ahead of print. PMID: 41366755

[Psychometric testing of two measures of vaccination attitudes among U.S. Latine respondents.](#)

Budd EL, De Anda S, Chaovalit P, Vu AH, Leve LD, DeGarmo DS. Vaccine. 2025 Dec 4;71:128044. doi: 10.1016/j.vaccine.2025.128044. Online ahead of print. PMID: 41349445

[Malaria control in Northern Ghana: a scoping review.](#)

Zankawah MM, Issakah MA, Yakubu E, Tiwaa-Boateng NA, Baatiema L, Moomin A, Banchani JS, Chimdi IE, Edusei AK, Ordinioha B. Malar J. 2025 Dec 5. doi: 10.1186/s12936-025-05565-6. Online ahead of print. PMID: 41351110

[Medication count, including statin or metformin use, is not associated with influenza vaccine responses in older adults.](#)

Li V, McClure H, Patel R, Kuchel GA, Verschoor CP. Vaccine. 2025 Dec 5;68:127913. doi: 10.1016/j.vaccine.2025.127913. Epub 2025 Oct 29. PMID: 41167013

[Increased neonatal vaccine dose or booster immunization prevents hepatitis B vaccine breakthrough infection in children from HBsAg and HBeAg positive mothers.](#)

Pan Y, Wu Y, Wang J, Jia Z, Song Y, Li Y, Wang C, Li J, Jiang J. NPJ Vaccines. 2025 Dec 4. doi: 10.1038/s41541-025-01327-2. Online ahead of print. PMID: 41345394

[Design of messenger RNA vaccines based on lipid-polymer hybrid nanoparticles.](#)

Baghel S, Lokras A, Dias BA, Landry M, Cerdá SL, Wadhwa A, Herrera-Barrera M, Thakur A, Rades T, Franzyk H, Hopkins C, Sun C, Christensen D, Pedersen GK, Sahay G, Foged C. J Control Release. 2025 Dec 10;388(Pt 2):114385. doi: 10.1016/j.jconrel.2025.114385. Epub 2025 Nov 3. PMID: 41192518

[Understanding COVID-19 Vaccine Hesitancy in Black, East Asian, and Eastern European Diasporic Communities in Toronto: A Scoping Review.](#)

Zinaic R, Wong JP. Int J Soc Determinants Health Health Serv. 2025 Dec 5;27551938251400901. doi: 10.1177/27551938251400901. Online ahead of print. PMID: 41348590

[Comparison of safety and immunogenicity between Healive®, Havrix® and live attenuated Hepatitis A vaccines in pediatric population: a systematic review with meta-analysis.](#)

Abo Zeid M, Elrosasy A, Farho MA, Rifai M, Aboelkhier MM, Elkhrahy MN, Zabady AH, Zaki MSA, Hamed EM, Dawood SA, Abuzaid Y. Ital J Pediatr. 2025 Dec 2;51(1):316. doi: 10.1186/s13052-025-01996-8. PMID: 41331784

[mRNA vaccine expressing enterovirus D68 virus-like particles induces potent neutralizing antibodies and protects against infection.](#)

Kunishima Y, Senpuku K, Kataoka-Nakamura C, Hirai T, Yoshioka Y. *Mol Ther Nucleic Acids*. 2025 Oct 6;36(4):102731. doi: 10.1016/j.omtn.2025.102731. eCollection 2025 Dec 9. PMID: 41210583

[Structure-Function Relationships of Heparan Sulfate-Based Neoproteoglycans as Selective Immunostimulatory Scaffolds.](#)

Chandra A, Maccarana M, Vishweshwara SS, Mardhekar S, Anand S, Bhoge PR, Li JP, Kikkeri R. *Chemistry*. 2025 Dec 4;31(68):e02735. doi: 10.1002/chem.202502735. Epub 2025 Oct 30. PMID: 41165520

[The telomerase vaccine UV1 combined with ipilimumab and nivolumab versus ipilimumab and nivolumab in advanced melanoma \(INITIUM\): A randomized open-label phase 2 study.](#)

Lorigan P, Medina TM, Nyakas M, Rutten A, Feun LG, Cowey CL, Payne M, Hussain I, Kuzel T, O'Day S, Sheri A, Friedlander PA, Kumar S, Bergersen VS, Foss Ø, Ellingsen EB, Bjørheim J, Bechter OE. *Eur J Cancer*. 2025 Dec 3;233:116162. doi: 10.1016/j.ejca.2025.116162. Online ahead of print. PMID: 41365069

[Vaccines and the 2024 US Presidential Election.](#)

Sharfstein JM, Westlund E, Frattaroli S, Levine AS, Pollack Porter K. *JAMA Health Forum*. 2025 Dec 5;6(12):e255361. doi: 10.1001/jamahealthforum.2025.5361. PMID: 41348350

[Pneumococcal carriage among children and adults before and after a change from a three-dose 13-valent pneumococcal conjugate vaccine schedule without a booster to a two-dose schedule with a booster in Burkina Faso.](#)

Childs L, Zoma RL, Ouedraogo I, Sawadogo G, Tarbangdo TF, Zoma A, Ouangraoua S, Dama E, Tran T, Akhter F, Utreja S, Ouattara M, Verani JR, Sanou S, Aké HF, McGee L, Kobayashi M. *Vaccine*. 2025 Dec 4;72:128064. doi: 10.1016/j.vaccine.2025.128064. Online ahead of print. PMID: 41349244

[Limitations of serological screening for measles immunity in young health care workers in New Zealand.](#)

Saha S, van Binnendijk R, Ussher J, Ten Hulscher H, Millier M, McIntyre P. *Vaccine*. 2025 Dec 5;68:127931. doi: 10.1016/j.vaccine.2025.127931. Epub 2025 Nov 3. PMID: 41187485

[Development of a dissolving microneedle patch for transdermal delivery of SARS-CoV-2 mRNA vaccine with enhanced stability and immunogenicity.](#)

Tang Z, Su T, Jiang T, Hu J, Chen D, Li X, Lu J, Lin J, Shen T. *J Control Release*. 2025 Dec 10;388(Pt 1):114263. doi: 10.1016/j.jconrel.2025.114263. Epub 2025 Sep 24. PMID: 41005741

[Challenges Facing Canadian Long-Term Care Homes and Retirement Homes During the COVID-19 Pandemic.](#)

Fahim C, Hassan AT, de Launay KQ, Takaoka A, Togo E, Strifler L, Bach V, Paul N, Mrazovac A, Firman J, Gruppuso V, Boyd JM, Straus SE. *Can Geriatr J*. 2025 Dec 3;28(4):359-373. doi: 10.5770/cgj.28.854. eCollection 2025 Dec. PMID: 41306638

[Report from the World Health Organization's Immunization and Vaccines-related Implementation Research Advisory Committee \(IVIR-AC\) meeting, virtual gathering, 1-5 September 2025.](#)

Lambach P, Silal S, Sbarra AN, Koh M, Aggarwal R, Farooqui HH, Flasche S, Hogan AB, Kim SY, Leung K, Moss WJ, Portnoy A, Sheel M, Wang XY. *Vaccine*. 2025 Dec 5;68:127903. doi: 10.1016/j.vaccine.2025.127903. Epub 2025 Nov 1. PMID: 41176964

[Innate immune mechanisms underlying the efficacy of a next-generation nanoparticle-based vaccine against opioid use disorders.](#)

Hamid FA, Rostamizadeh K, Skiados N, Le NN, Walter DL, Hannon B, Marecki C, Bian Y, Luengas D, Zhang C, Pravetoni M. *J Control Release*. 2025 Dec 10;388(Pt 1):114294. doi: 10.1016/j.jconrel.2025.114294. Epub 2025 Oct 6. PMID: 41061858

[Current state of knowledge about African swine fever: a review.](#)

Li ZB, Wang BB, Gao YY, Xian YH, Feng HS, Jin H, Li HY, Yang SY, Sang CJ, Cao YD, Tang Y, Cui YX, Ding ZQ, He H, Gao FS. *Anim Health Res Rev*. 2025 Dec 10;26:e4. doi: 10.1017/S1466252325100054. PMID: 41367051

[Remote-Controllable Immune-Priming Spot Formation Via Nanocomplexed Hydrogel-Assisted Histotripsy: Immunoasis.](#)

Kim SH, Choi W, Kim Y, Kim H, Jeong GW, Park H, Youn I, Park Y, Han S, Kim YM. *Adv Mater*. 2025 Dec 2:e18245. doi: 10.1002/adma.202518245. Online ahead of print. PMID: 41328860

[Bacterial Membrane Coating Potentiates Lipid Nanoparticles for mRNA Delivery.](#)

Wang R, Bao L, Yu Y, Zhang R, Guo Z, Kubiatowicz LJ, Krishnan N, Noh I, Wang E, Fang RH, Gao W, Zhang L. *Nano Lett*. 2025 Dec 10;25(49):17074-17081. doi: 10.1021/acs.nanolett.5c04371. Epub 2025 Nov 24. PMID: 41284821

[Long term immunogenicity of two doses of the quadrivalent HPV vaccine and the effect of an additional dose given five years post-primary vaccination.](#)

Sauvageau C, Ionescu IG, Ouakki M, Panicker G, Unger ER, Gilca V, Mayrand MH. *Vaccine*. 2025 Dec 5;68:127893. doi: 10.1016/j.vaccine.2025.127893. Epub 2025 Oct 30. PMID: 41172933

[Child vaccine communication practice in promoting child immunization in the Amhara region of Ethiopia.](#)

Assefa AN, Haile JM, Woldearegay AG. *World J Clin Pediatr*. 2025 Dec 9;14(4):107333. doi: 10.5409/wjcp.v14.i4.107333. eCollection 2025 Dec 9. PMID: 41255685

[Population effects of influenza vaccination in children and adolescents: Systematic review.](#)

Askar M, Adel K, Batke M, Chi Y, Gorenflo L, Robertson AH, Johansen K, de Jonge J, Kapp P, Krause TG, Lynch E, Meerpohl JJ, Melidou A, Nohynek H, Olmedo C, Olsson K, Pavlopoulou I, Pérez JJ, Piechotta V, Pinilla CH, Rubin J, Učakar V, Wilhelm J, Wichmann O, Harder T. *Vaccine*. 2025 Dec 5;71:128040. doi: 10.1016/j.vaccine.2025.128040. Online ahead of print. PMID: 41352220

[Environmental and physiological factors influencing the survival of resistant *Salmonella* under infection-related gut conditions.](#)

Prabhu C, Kotian A, Aditya V, Deekshit VK. Clin Microbiol Rev. 2025 Dec 5:e0019625. doi: 10.1128/cmr.00196-25. Online ahead of print. PMID: 41364116

[Corrigendum to "Accuracy of online surveys in predicting COVID-19 vaccine uptake and demand: A cohort study investigating vaccine sentiments and switching in 13 countries from 2020 to 2022" \[Vaccines 62 \(2025\) 127450\].](#)

Abel ZDV, Roope LSJ, Violato M, Clarke PM. Vaccine. 2025 Dec 5;71:128050. doi: 10.1016/j.vaccine.2025.128050. Online ahead of print. PMID: 41352222

[Immunologic and biophysical features of the BNT162b2 JN.1 and KP.2 adapted COVID-19 vaccines.](#)

Chen W, Tompkins KR, Windsor IW, Martinez LT, Ramos M, Li W, Shrivastava S, Rajput S, Chang JS, Sahasrabudhe P, Fennell KF, McLellan TJ, West GM, Dizon KP, Yam A, Mitra S, Saha S, Sharaf D, McKeen AP, Cadima CI, Muik A, Swanson W, Munoz Moreno R, Mendoza Daroca P, Sahin U, Anderson AS, Wu H, Swanson KA, Modjarrad K. Nat Commun. 2025 Dec 5;16(1):10914. doi: 10.1038/s41467-025-65896-5. PMID: 41350251

[Development and immunogenicity of a recombinant PRRSV live vector co-expressing CSFV E2 antigen and porcine IL-18 for multivalent swine vaccination.](#)

Guo Z, Li J, Luo M, Shuai W, Zhou Y, Jiang Y, Li L, Tong W, Tong G, Zeng Y, Wang J, Gao F. Vaccine. 2025 Dec 5;68:127886. doi: 10.1016/j.vaccine.2025.127886. Epub 2025 Oct 29. PMID: 41167014

[Decisional needs of older adults considering COVID-19 booster vaccinations: A systematic review comparing China with other countries.](#)

Zhang Q, Lewis KB, Phillips JC, Ma H, Kiss A, Goge S, Rader T, Stacey D. Vaccine. 2025 Dec 5;68:127949. doi: 10.1016/j.vaccine.2025.127949. Epub 2025 Nov 6. PMID: 41202611

[Cell surface display of VP1 of foot-and-mouth disease virus on *Saccharomyces cerevisiae*.](#)

Le NMT, Chun J, Ko YH, Kim DH. Microb Cell Fact. 2025 Dec 2;24(1):244. doi: 10.1186/s12934-025-02872-0. PMID: 41331729

[Oncogene Mutations: The Shared Antigen Vaccines That Work?](#)

Paredes R, Haldar SD, Pant S, O'Reilly EM. Annu Rev Med. 2025 Dec 5. doi: 10.1146/annurev-med-043024-111400. Online ahead of print. PMID: 41349567

[Does peptidome mimicry shape host-parasite coevolution?](#)

Flegr J. Trends Parasitol. 2025 Dec 5:S1471-4922(25)00325-3. doi: 10.1016/j.pt.2025.11.002. Online ahead of print. PMID: 41353057

[A live-attenuated human-lamb rotavirus reassortant confers robust protective immunity in mice.](#)

Kou G, Cheng Y, Zhang G, Wang Y, Hu G, Hou F, Wang W, Chen Y, Tang Y, Wang W, Wang X, Zhang H, Li X. *Vaccine*. 2025 Dec 5;68:127898. doi: 10.1016/j.vaccine.2025.127898. Epub 2025 Oct 28. PMID: 41161043

[Porcine reproductive and respiratory syndrome virus 2 in Europe: neither wild nor tamed.](#)

Franzo G, Tucciarone CM, Legnardi M, Melegari I, Berjaoui S, Gatta G, Poletto F, Valente R, Marcone D, Lorusso A, Drigo M, Molini U. *Porcine Health Manag*. 2025 Dec 8. doi: 10.1186/s40813-025-00478-x. Online ahead of print. PMID: 41354980

[Impact of COVID-19 on Parental Barriers to Childhood Vaccination: A Systematic Review.](#)

Regmi S, Pande R, Wyatt TH, Niederhauser V. *J Pediatr Health Care*. 2025 Dec 3:S0891-5245(25)00341-4. doi: 10.1016/j.pedhc.2025.11.004. Online ahead of print. PMID: 41335077

[Using the Health Belief Model to Examine Parental Knowledge and Health Beliefs About Human Papilloma Virus \(HPV\) and iHPV Vaccine in Kuwait: Cross-Sectional Survey Study.](#)

Abuzoor A, Jabin MSR, Eshareturi C, Nesbitt R, Jonker C. *JMIR Public Health Surveill*. 2025 Dec 9;11:e75818. doi: 10.2196/75818. PMID: 41368717

[Evolution and trends in non-viral mRNA Cancer vaccines: A scoping review from 2015 to 2025.](#)

Nowzari F, Nowzari F, Kian M, Zahedi M, Samimi K, Karimzadeh A, Tanideh N, Mussin NM, Tamadon A. *Vaccine*. 2025 Dec 5;71:128059. doi: 10.1016/j.vaccine.2025.128059. Online ahead of print. PMID: 41352221

[\[Vaccination Recommendations for the Immunocompromised Adult Patient\].](#)

Abreu C, Peres S, Cunha F, Miranda J, Nunes-Silva C, Silva-Pinto A, Ribeiro-Dias L, Oliveira J. *Acta Med Port*. 2025 Dec 2;38(12):814-827. doi: 10.20344/amp.22966. Epub 2025 Dec 2. PMID: 41353643

[Co-administration of a synthetic saccharide conjugate vaccine with BCG provides synergistic protection against murine tuberculosis.](#)

Miranda-Hernandez S, Sathkumara HD, Zhao G, Schofield L, Kupz A. *Vaccine*. 2025 Dec 5;68:127912. doi: 10.1016/j.vaccine.2025.127912. Epub 2025 Oct 29. PMID: 41167016

[Effect of pneumococcal conjugate vaccine booster dose on prevention of invasive pneumococcal disease in British Columbia, 2003-2018.](#)

Chang CY, Nasreen S, Sadarangani M, Cragg JJ, Marra F. *Vaccine*. 2025 Dec 3;71:128066. doi: 10.1016/j.vaccine.2025.128066. Online ahead of print. PMID: 41343987

[Optimizing immunization through concurrent vaccination: a safety and cost analysis of PCV13 and rotavirus vaccines co-administration in Shanghai.](#)

Tian J, Wang X, Gu L, Ren J, Zhao D, Qian M, Sun X, Yang S, Ma Z, Wang N, Huang Z, Wang W. *Vaccine*. 2025 Dec 5;68:127880. doi: 10.1016/j.vaccine.2025.127880. Epub 2025 Oct 30. PMID: 41172934

[Community interpretation of a consent form and willingness to participate in a Nipah virus vaccine trial in Bangladesh.](#)

Nahar N, Parveen S, Gurley ES, Ghosh PK, Jabeen I, Haidar MR, Jahan F, Munim MS, Ali MW, Shirin T, Banu S, Chowdhury AI, Alam A, Dawes BE, Fusco J, Monath TP, Heppner G, Luby SP. *Vaccine*. 2025 Dec 5;68:127953. doi: 10.1016/j.vaccine.2025.127953. Epub 2025 Nov 13. PMID: 41232456

[Public health messaging and community engagement during COVID-19: a rapid-review from the Greater Mekong Subregion.](#)

Vedlog Kveen K, Lilier K, Råberg Kjøllesdal MK, Naranjo-Zolotov M, Lapanun P, Veiga I, Dias S, Overgaard HJ, Bärnighausen K. *One Health Outlook*. 2025 Dec 8;7(1):61. doi: 10.1186/s42522-025-00183-3. PMID: 41361900

[Biological characteristics of an enterovirus A71 subgroup C4 strain isolated in China.](#)

Ma T, Li H, Li Y, Lin W, Yu Z, Li L, Zhang W, Song H, Jia L, Xie J. *BMC Infect Dis*. 2025 Dec 4. doi: 10.1186/s12879-025-12241-2. Online ahead of print. PMID: 41345916

[Pneumococcal vaccines: A dose of change. Vaccine failures and breakthrough infections in Belgian children during the PCV13 era \(2019-2024\).](#)

Dambre C, Cornelissen L, Cuyppers L, Desmet S. *Vaccine*. 2025 Dec 5;72:128065. doi: 10.1016/j.vaccine.2025.128065. Online ahead of print. PMID: 41351928

[Cost-effectiveness of infant and maternal RSV immunization strategies, in British Columbia, Canada.](#)

Taleshi J, Paramo MV, Watts A, Chilvers M, Wong JMH, Piszczek J, Separovic L, Hu J, Skowronski D, Lavoie PM, Sbihi H. *Vaccine*. 2025 Dec 5;68:127936. doi: 10.1016/j.vaccine.2025.127936. Epub 2025 Nov 10. PMID: 41218303

[Effect of influenza vaccination on post-admission outcomes for influenza patients in England: a population-based cohort study.](#)

Jeffery C, Cheyne CP, Buchan I, Garcia-Finana M, Green MA, Bonnett L, Hughes DM, French N, Hungerford D. *Vaccine*. 2025 Dec 5;68:127933. doi: 10.1016/j.vaccine.2025.127933. Epub 2025 Nov 9. PMID: 41213184

[Zika Virus Neutralizing Antibody Responses Elicited by Vaccination or Infection.](#)

Galindo CM, Ling Y, Kpamegan E, Nascimento EJM, Perez-Guzman E, Ticona JPA, Chan KF, Castanha P, Buddhari D, Farmer A, Fernandez S, Baldwin WR, Kaiser M, Fernandes J, Zahralban-Steele M, Brinkman A, Rindfleisch T, Moss KJ, Roupheal N, El Sahly HM, Marques ETA, Ko AI, Acosta CJ. *Open Forum Infect Dis*. 2025 Dec 3;12(12):ofaf707. doi: 10.1093/ofid/ofaf707. eCollection 2025 Dec. PMID: 41346444

[Reprogramming Immunosuppressive Niches and the Cancer Immunity Cycle in Pancreatic Cancer with Neoantigen mRNA Plus Immune Adjuvant Nanocarrier Strategies.](#)

Nel AE, Luo L, Liao YP, Wang X. *ACS Nano*. 2025 Dec 9;19(48):40733-40745. doi: 10.1021/acsnano.5c14753. Epub 2025 Nov 22. PMID: 41273281

[Comparative immunoinformatic analysis of Rhipicephalus microplus cocktail vaccine targets.](#)

Hendawy SHM, Alzan HF, Ueti MW. *Parasit Vectors*. 2025 Dec 9;18(1):502. doi: 10.1186/s13071-025-07109-y. PMID: 41366802

[Assessing factors associated with one-year antibody waning in participants with repeated influenza vaccinations: A six-year cohort study.](#)

Cheng C, Chen X, Ge Y, Sung MH, Zhang Y, Ogunyemi K, Carlock MA, Hanley HB, Handel A, Ross TM, Shen Y. *Vaccine*. 2025 Dec 5;68:127904. doi: 10.1016/j.vaccine.2025.127904. Epub 2025 Nov 6. PMID: 41202613

[Black Mamas Matter: Maternal Leadership and COVID-19 Vaccine Decisions Among Black Women in Michigan.](#)

Williams C 2nd, Cross FL, Lucio J, Hunt R, Ku CP, Bailey S, Marsh EE, Resnicow K. *J Racial Ethn Health Disparities*. 2025 Dec 5. doi: 10.1007/s40615-025-02768-0. Online ahead of print. PMID: 41350500

[The impact of innate and humoral immune mechanisms on vaccine induced protection against avian influenza H9N2 in broilers.](#)

Asaad HM, Hassanin O, Saif-Edin M, Ibrahim RS, Mohamed MA, Hamad M, Abdullatif TM. *Sci Rep*. 2025 Dec 2;15(1):43016. doi: 10.1038/s41598-025-28122-2. PMID: 41331407

[Toxigenic diphtheria rarely detected amid rising cases of nontoxigenic *Corynebacterium diphtheriae* infections in Ontario, Canada, 2011-2023.](#)

McTaggart LR, Scione A, Hillier K, Brown E, Wilson SE, Kus JV. *J Clin Microbiol*. 2025 Dec 4:e0145225. doi: 10.1128/jcm.01452-25. Online ahead of print. PMID: 41342536

[Venous thromboembolism risk following surgery during the COVID-19 pandemic.](#)

Jackson A, Humes DJ, Mehrkar A, Bacon SCJ, Davy S, Goldacre B, West J, Crooks CJ. *Anaesthesia*. 2025 Dec 3. doi: 10.1111/anae.70091. Online ahead of print. PMID: 41334827

[U.S. state lawmaker support for COVID-19 vaccine policies during the pandemic.](#)

O'Brien TL, Johnson DR. *Vaccine*. 2025 Dec 5;68:127930. doi: 10.1016/j.vaccine.2025.127930. Epub 2025 Nov 7. PMID: 41205401

[Next-generation Pertussis Vaccines with Special Focus on Intranasal Vaccination.](#)

Ehteshaminia Y, Golsaz-Shirazi F, Amiri MM, Shokri F. *Iran J Immunol*. 2025 Dec 10;22(4). doi: 10.22034/iji.2025.108179.3088. PMID: 41367219

[Post-vaccination SARS-CoV-2 neutralizing antibodies in pregnant women receiving biologics for inflammatory bowel disease.](#)

Leet DE, Jin J, Craik CS, Kattah MG, Long MD, Mahadevan U. *PLoS One*. 2025 Dec 3;20(12):e0321242. doi: 10.1371/journal.pone.0321242. eCollection 2025. PMID: 41335589

[Vaccines as a strategic approach to combat *Vibrio parahaemolyticus* and control of early mortality syndrome in shrimp aquaculture: A comprehensive review.](#)

Sen BK, Ghosh RR, Rahman M, Ahmed I, Hossain MMM. *Vaccine*. 2025 Dec 2;71:128049. doi: 10.1016/j.vaccine.2025.128049. Online ahead of print. PMID: 41338116

[Enhanced immunogenicity of swine coronavirus PEDV by engineering transcriptional regulatory sequences.](#)

Song X, Peng Q, Zhang X, Zhao Y, Zhang G, Guo R, Li Y, Shen Y, Yang S, Hu M, Zhang X, Li J, Fan B, Li B. *Vaccine*. 2025 Dec 5;68:127914. doi: 10.1016/j.vaccine.2025.127914. Epub 2025 Oct 29. PMID: 41167015

[Survivin targeting triple-fusion vaccine \(DC\)Survivin-LTB inhibits tumor growth in mouse model of triple-negative breast cancer.](#)

Rashid A, Krishnan A, Gupta S, Gupta JC, Talwar GP. *Med Oncol*. 2025 Dec 4;43(1):35. doi: 10.1007/s12032-025-03152-y. PMID: 41343102

[Metabolism-programming mRNA-lipid nanoparticles remodel the immune microenvironment to improve immunotherapy against MAFLD.](#)

Yu X, Qi S, Cao W, Cheng M, Zhang W, Wang Y, Zheng R, Jin G, Gao X, Lu M, Lei J, Peng K, Su X, Zhang Q, Yu G. *Sci Transl Med*. 2025 Dec 3;17(827):eadv2293. doi: 10.1126/scitranslmed.adv2293. Epub 2025 Dec 3. PMID: 41337543

[Development of mRNA Cancer Vaccines: Delivery Strategies and Immunogenicity Optimization.](#)

Ali A. *Curr Med Sci*. 2025 Dec 8. doi: 10.1007/s11596-025-00127-y. Online ahead of print. PMID: 41359255

[The recombinant zoster vaccine induces trained immunity in monocytes through persistent downregulation of TGFbeta.](#)

Johnson MJ, Crotteau M, Ghosh D, Vu T, Trinity L, Marches R, Ucar D, Levin MJ, Weinberg A. *PLoS Pathog*. 2025 Dec 5;21(12):e1013759. doi: 10.1371/journal.ppat.1013759. Online ahead of print. PMID: 41348857

[Multi-Architecture Nanovaccines Against Pseudorabies Virus and Particle Size-Governed Immune Activation Mechanisms.](#)

Zhang M, Wang C, Meng C, Xu X, Zhan J, Li Y, Wang Q, Pan J, Cui H, Zhao X. *Adv Healthc Mater*. 2025 Dec 3:e03382. doi: 10.1002/adhm.202503382. Online ahead of print. PMID: 41334694

[A Threat to Evidence-Based Vaccine Policy and Public Health Security at the FDA.](#)

Califf RM, von Eschenbach AC, Friedman MA, Giroir BP, Gottlieb S, Hamburg MA, Henney JE, Kessler DA, McClellan MB, Ostroff SM, Sharpless NE, Woodcock J. *N Engl J Med*. 2025 Dec 3. doi: 10.1056/NEJMp2517497. Online ahead of print. PMID: 41337736

[Association of access and acceptance barriers with under- and non-vaccination of children <5 years in Australia: A national cross-sectional survey of parents.](#)

Kaufman J, Steffens MS, Vidmar S, Bolsewicz KT, Leask J, Christou-Ergos M, Sabahelzain M, Boxall J, Danchin M. *Public Health*. 2025 Dec 2;250:106082. doi: 10.1016/j.puhe.2025.106082. Online ahead of print. PMID: 41344276

[Revealing the Crucial Role of Healthcare Providers in HPV Vaccine Uptake in Filipino American Adolescents: Insights from the National Immunization Survey-Teen, 2015-2019.](#)

Reyes AM, Liu EZ, Siu PT, Pan C, Ma GX, Zhu L. *J Racial Ethn Health Disparities*. 2025 Dec 2. doi: 10.1007/s40615-025-02749-3. Online ahead of print. PMID: 41329295

[Modular design of a self-amplifying mRNA vaccine for multivalent immunization against *Neisseria meningitidis B*.](#)

Chen G, Chen G, Wang S, Xing R, Yang Y, Zhou R, Ma L, Wang X, Wang Y, Song W, Xu Z, Li Z, Zhang M, Fang W, Hu Y, Xiong C, Wang Y. *Vaccine*. 2025 Dec 5;68:127964. doi: 10.1016/j.vaccine.2025.127964. Epub 2025 Nov 7. PMID: 41205400

[Impaired cellular immune responses to Herpes Zoster subunit vaccine in patients with rheumatoid arthritis receiving Janus kinase inhibitors.](#)

Källmark H, Gullstrand B, Kahn F, Grenmyr E, Kahn R, Einarsson JT, Bengtsson AA, Kapetanovic MC. *Rheumatology (Oxford)*. 2025 Dec 2;keaf626. doi: 10.1093/rheumatology/keaf626. Online ahead of print. PMID: 41330694

[Buccal microneedle-delivered ferritin nanovaccines induce strong respiratory immunity against *Pseudomonas aeruginosa*.](#)

He C, He P, Ye L, Yang Q, Ye Y, Wang Y, Guo Z, Ou Y, Wang H, Zhao Y, Bai S, Wei H, Du G, Sun X. *J Control Release*. 2025 Dec 10;388(Pt 1):114280. doi: 10.1016/j.jconrel.2025.114280. Epub 2025 Sep 29. PMID: 41033398

[Actively Targeted Nanoparticles for Enhanced Diagnosis, Treatment, and Vaccination of Tuberculosis: A Systematic Review.](#)

Cung J, Husni P, Oh KT. *Int J Nanomedicine*. 2025 Dec 2;20:14343-14374. doi: 10.2147/IJN.S557784. eCollection 2025. PMID: 41356707

[In silico analysis of VP2 protein from infectious bursal disease virus isolate UPM1432/2019: structural dynamics and epitope prediction.](#)

Mansour AY, Omar AR, Bejo MH, Alitheen NB, Mat Isa N. *Antonie Van Leeuwenhoek*. 2025 Dec 5;119(1):4. doi: 10.1007/s10482-025-02209-2. PMID: 41348167

[Vaccine hesitancy among midlife and older adults in the United States.](#)

Reiter PL, Katz ML. *Vaccine*. 2025 Dec 3;72:128054. doi: 10.1016/j.vaccine.2025.128054. Online ahead of print. PMID: 41344033

[Vaccine coverage, antibodies against measles, mumps, rubella, hepatitis B in inflammatory bowel disease and juvenile idiopathic arthritis children.](#)

Makarova E, Goleva O, Gabrusskaya T, Lubimova N, Ulanova N, Volkova N, Shilova E, Revnova M, Kharit S, Kostik M. *World J Clin Pediatr.* 2025 Dec 9;14(4):111069. doi: 10.5409/wjcp.v14.i4.111069. eCollection 2025 Dec 9. PMID: 41255672

[Reconstructing the spread of measles in the 20th century: an epidemiological analysis of the period prior to the introduction of vaccination in Switzerland.](#)

Friedauer C, Matthes KL, Lang P, Staub K. *Am J Epidemiol.* 2025 Dec 2;194(12):3556-3565. doi: 10.1093/aje/kwaf167. PMID: 40796137

[Cationic amino acid-engineered peptide hydrogels for sustained and potent antigen delivery enabling single-administration vaccination.](#)

Zhou J, Yu J, Zhang S, Teng Z, Zang H, Zhang M, Sun S, Guo H. *Nanoscale.* 2025 Dec 4;17(47):27506-27521. doi: 10.1039/d5nr03790e. PMID: 41269068

[Gut-initiated mucosal and systemic immunity against SARS-CoV-2 via an oral hyaluronic acid/chitosan vaccine coacervate.](#)

Li S, Huo S, Zheng W, Wu S, Chen Y, Zhang Z, Wang B, Zhao Z, Huo N, Xu J, Liu T, Long J, Song X, Zhang J, Dan J, Zhang M, Hou L. *J Control Release.* 2025 Dec 10;388(Pt 2):114376. doi: 10.1016/j.jconrel.2025.114376. Epub 2025 Nov 1. PMID: 41183574

[Seasonal influenza and pneumococcal vaccination coverage among immunocompromised adults in France: A need for improvement.](#)

Cailleaux M, Balusson F, Pelé F, Bury G, Reissier S, Baldeyrou M, Alix L, Saade A, Polard E, Tattevin P. *Infect Dis Now.* 2025 Dec 6:105225. doi: 10.1016/j.idnow.2025.105225. Online ahead of print. PMID: 41360289

[Thiourea-modified poly\(L-lysine\) carriers with multiple hydrogen bonding interactions for safe and robust mRNA vaccine therapy.](#)

Long J, Ma S, Wan R, Sun A, Zhu Z, Wang R, Guo Z, Song W. *J Control Release.* 2025 Dec 10;388(Pt 2):114371. doi: 10.1016/j.jconrel.2025.114371. Epub 2025 Oct 29. PMID: 41173361

[Predictors of childhood vaccination uptake in England: an explainable machine learning analysis of regional data \(2021-2024\).](#)

Noroozi A, Esha SM, Ghari M. *Vaccine.* 2025 Dec 5;68:127902. doi: 10.1016/j.vaccine.2025.127902. Epub 2025 Oct 28. PMID: 41161040

[Neisseria meningitidis serogroup B causing invasive disease, Italy, 2010-2021.](#)

Vacca P, Vescio F, D'Ancona F, Fazio C, Neri A, Carannante A, Ambrosio L, Lista FR, Fillo S, Ciammaruconi A, Fortunato A, Stefanelli P. *PLoS One.* 2025 Dec 5;20(12):e0337446. doi: 10.1371/journal.pone.0337446. eCollection 2025. PMID: 41348714

[Tolerability, safety, and preliminary immunogenicity assessment of different dosages of Quadrivalent inactivated influenza vaccine in healthy subjects aged 6-35 months: A single-center, dose-escalation, open-label phase I clinical trial.](#)

Zhu Y, Si M, Wang L, Zhang Y, Zhu T, Wu J, Zhang Y, Shuai Q, Lu W, Ma W, Zhao M, Zhu S, Tang Y, Yu J. *Vaccine*. 2025 Dec 5;68:127962. doi: 10.1016/j.vaccine.2025.127962. Epub 2025 Nov 8. PMID: 41207071

[BNT162b2 mRNA COVID-19 vaccine effectiveness in pregnancy: Emulating trial NCT04754594 using observational data from Norwegian health registries.](#)

Zidan M, Trinh NTH, Desalegn A, Smith LH, van Gelder MMHJ, Nordeng H, Lupattelli A. *Vaccine*. 2025 Dec 5;68:127908. doi: 10.1016/j.vaccine.2025.127908. Epub 2025 Nov 6. PMID: 41202612

[The impact of two-year community-wide pharmacy interventions on the public's knowledge, attitudes, beliefs and behaviors about pharmacists as immunizers.](#)

Halperin DM, Castri AMD, Isenor JE, Lowe WK, Ye L, Kervin MS, Whittle CA, Halperin SA; Improve ACCESS Team for the Canadian Immunization Research Network (CIRN). *BMC Public Health*. 2025 Dec 5;25(1):4221. doi: 10.1186/s12889-025-24906-3. PMID: 41351147

[Modeling COVID-19 response in Cuba: a hybrid approach combining agent-based modeling and time series analysis.](#)

Orlando G, Bufalo M, Nazarova V. *Popul Health Metr*. 2025 Dec 3;23(1):71. doi: 10.1186/s12963-025-00433-6. PMID: 41331436

[Polyvalent mRNA vaccine targeting outer surface protein C affords multi-strain protection against Lyme disease.](#)

Pfeifle A, Lansdell C, Zhang W, Tamming LA, Anderson-Duvall R, Thulasi Raman SN, Gravel C, Wu J, Frahm G, Creskey M, Voordouw MJ, Coatsworth H, Qiu W, Marconi RT, Sauve S, Wang L, Zhang X, Johnston MJW, Li X. *NPJ Vaccines*. 2025 Dec 4. doi: 10.1038/s41541-025-01326-3. Online ahead of print. PMID: 41345132

[Distinguishing active HIV-1 infection from vaccine-induced seropositivity in HIV vaccine trial participants.](#)

Dighe K, Colak O, Moitra P, Alafeef M, Skrodzki D, Aditya T, Saha P, Gunaseelan N, Hural J, Pinto C, Pan D. *Sci Adv*. 2025 Dec 5;11(49):eadz5639. doi: 10.1126/sciadv.adz5639. Epub 2025 Dec 3. PMID: 41337582

[A vaccine targeting human IgE induces long-term protection against anaphylaxis in humanized mice.](#)

Conde E, Lamanna E, Mougél A, Kamphuis JBJ, Loste A, Stackowicz J, Godon O, Mauré E, Pecalvel C, Worrall WPM, Andrieux L, Leveque E, Benmessaoud Z, Apoil PA, Backovic M, Iannascoli B, Bonnefoy J, Hamdi S, Colaone F, Jönsson F, England P, Guilleminault L, Malissen B, Fiore F, Linnemann L, Breloer M, Gaudenzio N, Drouet B, Lemdani K, Serra V, Bruhns P, Reber LL. *Sci Transl Med*. 2025 Dec 3;17(827):eads0982. doi: 10.1126/scitranslmed.ads0982. Epub 2025 Dec 3. PMID: 41337542

[Provider setting for influenza and COVID-19 vaccination among Australian adults in 2023 and 2024.](#)

Reekie J, Stepien S, Hendry A, Dalton L, Macartney K, Liu B. *Vaccine*. 2025 Dec 5;68:127945. doi: 10.1016/j.vaccine.2025.127945. Epub 2025 Nov 6. PMID: 41202610

[The role of therapeutic cancer vaccines in the modern immunotherapy era: State of the art with recent progress and future challenges.](#)

Rota M, Torresan I, Palmerio S, Tasselli E, Rossi A, Zivi A, Zacchi F. *Crit Rev Oncol Hematol*. 2025 Dec 3;217:105068. doi: 10.1016/j.critrevonc.2025.105068. Online ahead of print. PMID: 41349781

[Lipid Nanoparticle Chaperone with Redox-Adaptive Intracellular Microenvironment Modulation Potentiates the Potency of mRNA Vaccines.](#)

Yu X, Qi S, Zhang W, Li H, Cao F, Wang Y, Peng K, Lin X, Chen X, Yu G. *J Am Chem Soc*. 2025 Dec 3;147(48):44072-44086. doi: 10.1021/jacs.5c10972. Epub 2025 Nov 20. PMID: 41263704

[Hepatitis B vaccination series completion among residents of low-income housing in Texas: An exploratory analysis of demographic and clinical factors.](#)

Grace A, Schick V, Quan FT, Troisi C, Cantu A, Roberts L, Tsai J. *Vaccine*. 2025 Dec 3;70:128037. doi: 10.1016/j.vaccine.2025.128037. Online ahead of print. PMID: 41344305

[Predictive Markers of SARS-CoV-2 Spike-specific Cytotoxic T Cell Activity Following Omicron Breakthrough Infection.](#)

Holder KA, Ings DP, Hatfield KM, Fifield KE, Barnes DA, Barnable KA, Harnum DOA, Grant MD. *Emerg Microbes Infect*. 2025 Dec 9:2602317. doi: 10.1080/22221751.2025.2602317. Online ahead of print. PMID: 41362990

[Vasculitis syndromes: the pathogenic roles of COVID-19 and related vaccinations.](#)

Razi-Soofiyani S, Saadat YR, Vahed SZ, Saghaleini SH, Nakhjavani MJ, Abediazar S. *Virol J*. 2025 Dec 9. doi: 10.1186/s12985-025-03032-x. Online ahead of print. PMID: 41366790

[Design of a multi-epitope vaccine against intestinal parasites associated with colorectal cancer using immunoinformatics approaches.](#)

Karimzadeh F, Heidari R, Lamooki FM, Soureshjani EH, Aziz S, Mirzaei SA. *Sci Rep*. 2025 Dec 8. doi: 10.1038/s41598-025-31713-8. Online ahead of print. PMID: 41360964

[Cross-herpesvirus immunity of the cytomegalovirus gB/MF59 vaccine response.](#)

Lankina A, Hargreaves A, Lui WT, Kropff B, Wei A, Breuer J, White RE, Thomas M, Griffiths PD, Reeves MB. *NPJ Vaccines*. 2025 Dec 5;10(1):254. doi: 10.1038/s41541-025-01315-6. PMID: 41350277

[Experimental vaccine prevents deadly allergic reactions in mice.](#)

Fieldhouse R. *Nature*. 2025 Dec 3. doi: 10.1038/d41586-025-03960-2. Online ahead of print. PMID: 41339590

[COVID-19 vaccine variant target: how should we choose?](#)

Sharff KA, Haslam A, Nealon J. *Vaccine*. 2025 Dec 5;68:127917. doi: 10.1016/j.vaccine.2025.127917. Epub 2025 Nov 5. PMID: 41197442

[Economic evaluation of the one-dose HPV vaccination program in Nigeria.](#)

Gao T, Farag M, Agha S, Mobula L, Hou X, Li G, Zeng W. *J Cancer Policy*. 2025 Dec 6:100675. doi: 10.1016/j.jcpo.2025.100675. Online ahead of print. PMID: 41360288

[Application of mRNA Vaccines in Children's Vaccination: Technical Advantages, Clinical Practice and Future Challenges.](#)

Song YL, Gao YD, Geng XY, Liu YB. *Acta Paediatr*. 2025 Dec 7. doi: 10.1111/apa.70412. Online ahead of print. PMID: 41353585

[Herpes simplex virus 1 strain 17+ with R2 mutation in UL37 has residual retrograde transport.](#)

Walter M, Haick AK, Massa PA, Klouser LM, Stensland L, Santo TK, Xie H, Jerome KR. *Microbiol Spectr*. 2025 Dec 3:e0195925. doi: 10.1128/spectrum.01959-25. Online ahead of print. PMID: 41334909

[Exploring the links between NITAGs and academic institutions: a landscape analysis protocol.](#)

Oduwole EO, Hussey GD, Hawkridge A, Noll S, Burton A, Sheridan SL, Kagina B. *BMJ Open*. 2025 Dec 8;15(12):e108736. doi: 10.1136/bmjopen-2025-108736. PMID: 41365586

[Assessment of tracheal mucosal thicknesses is a preferable method for evaluation of the immunogenicity of *Mycoplasma gallisepticum* vaccines in poultry.](#)

Kulappu Arachchige SN, Abeykoon AMH, Stevenson MA, Kanci Condello A, Shil PK, Tulman ER, Szczepanek SM, Silbart LK, Underwood GJ, Noormohammadi AH, Geary SJ, Wawegama NK, Browning GF. *Vaccine*. 2025 Dec 8;72:128063. doi: 10.1016/j.vaccine.2025.128063. Online ahead of print. PMID: 41365127

[In-silico design and evaluation of a novel mRNA vaccine against human bocavirus 1: A neglected viral pathogen.](#)

Rubab A, Sarfraz A, Khan MU, Fawy KF, Shah M. *Comput Biol Med*. 2025 Dec 3;200:111344. doi: 10.1016/j.combiomed.2025.111344. Online ahead of print. PMID: 41343928

[B cells play an important role in HVT vaccine-mediated protection against Marek's disease virus.](#)

Sabsabi MA, Kheimar A, von La Roche D, Härtle S, Kunec D, Cong Y, Kossak L, von Heyl T, Schusser B, Kaufner BB. *Vaccine*. 2025 Dec 3;72:128048. doi: 10.1016/j.vaccine.2025.128048. Online ahead of print. PMID: 41344034

[The effect of shingles vaccination at different stages of the dementia disease course.](#)

Xie M, Eytling M, Bommer C, Ahmed H, Geldsetzer P. *Cell*. 2025 Dec 2:S0092-8674(25)01256-5. doi: 10.1016/j.cell.2025.11.007. Online ahead of print. PMID: 41338191

[Polysaccharide extracted from *Polygonatum kingianum* Coll. Et Hemsl. Activates macrophages via the TLR4/NF-kappaB/MAPK pathway and exhibits vaccine adjuvant effect.](#)

Jin C, Ma B, Zhong C, Jia L, Yang J, Wang W, Liu J, Zhou Y, Zhu R, Yang B, Wang Y. *Int Immunopharmacol.* 2025 Dec 3;166:115585. doi: 10.1016/j.intimp.2025.115585. Epub 2025 Sep 29. PMID: 41027058

[Chlamydia trachomatis-specific T Cell Immunity Reflects Widespread Exposure in South African Adolescents and Young Women.](#)

Bunjun R, Lurie M, Dabee S, Barnabas S, Maseko V, Jaumdally SZ, Gamielidien H, Lewis DA, Jaspan HB, Gill K, Bekker LG, Passmore JS. *J Infect Dis.* 2025 Dec 3;jiaf595. doi: 10.1093/infdis/jiaf595. Online ahead of print. PMID: 41334931

[Impact of vaccination on shingles-related hospitalisations in 70-79-year-olds in Scotland between 2000 and 2023: A retrospective cohort study.](#)

Kouzeli A, Hasan T, Smith K, Metelmann S, Gibbons C, Ghebrehewet S. *Vaccine.* 2025 Dec 5;68:127951. doi: 10.1016/j.vaccine.2025.127951. Epub 2025 Nov 7. PMID: 41205404

[An outer membrane vesicle vaccine prevents lung pathology in a macaque model of pneumonic melioidosis.](#)

Baker SM, Settles EW, Celona KR, Shannon AB, Davitt C, Hall K, Jain A, de Assis RR, Gregory AE, Felgner PL, Woerle C, Mayo M, Currie BJ, Wimley WC, McLachlan JB, Yoon H, Dao CT, Moser J, Pociask D, Keim P, Russell-Lodrigue K, Roy CJ, Morici LA. *Nat Commun.* 2025 Dec 9. doi: 10.1038/s41467-025-67213-6. Online ahead of print. PMID: 41366245

[Geospatial inequalities in zero-dose vaccination and structural determinants: Insights from sub-Saharan Africa \(2015-2023\).](#)

Wand H, Naidoo S, Moodley J, Govender V. *Vaccine.* 2025 Dec 4;71:128062. doi: 10.1016/j.vaccine.2025.128062. Online ahead of print. PMID: 41349446

[Whole-genome sequencing-based pathogen characterization for streptococcal infection directly from positive blood culture samples.](#)

Li Y, Lin W, Li Z, Tran T, Metcalf BJ, Velusamy S, Gross A, Snippes Vagnone P, Lynfield R, Beall B, McGee L, Chochua S. *J Clin Microbiol.* 2025 Dec 8:e0112625. doi: 10.1128/jcm.01126-25. Online ahead of print. PMID: 41358744

[Revealing trends in measles immunity during periods of varying measles circulation in Madagascar.](#)

Menezes A, Hay JA, Razafindratsimandresy R, Randriamanantena AH, Yang L, Héraud JM, Cauchemez S, Wesolowski A, Grenfell B, Graham AL, Metcalf CJE. *Am J Epidemiol.* 2025 Dec 2;194(12):3416-3423. doi: 10.1093/aje/kwaf005. PMID: 39838518

[Investigation of infection, genetic evolution and structural characteristics of bovine coronavirus in dairy farms in Hebei, China.](#)

Niu Z, Hou X, Liu Y, Yang L, Nie L, Zhu C, Huang Y, Du Q, Tong D. *Vet J.* 2025 Dec 3;315:106526. doi: 10.1016/j.tvjl.2025.106526. Online ahead of print. PMID: 41349785

[Developments in genital herpes: progress in prevention and treatment.](#)

Collins-Ogle M, Herold BC. *Curr Opin Infect Dis.* 2025 Dec 3. doi: 10.1097/QCO.0000000000001177. Online ahead of print. PMID: 41344864

[Designing influenza virus-derived cell-penetrating peptides for antigen delivery: Integrating uptake efficiency, safety, and receptor targeting.](#)

Sadeh S, Ghaemi A, Soleimani NA, Moghbeli M, BahramAli G. *PLoS One.* 2025 Dec 9;20(12):e0338028. doi: 10.1371/journal.pone.0338028. eCollection 2025. PMID: 41364690

[An Argonaute protein traffics from nematode to mouse and is a vaccine against parasitic nematodes.](#)

Neophytou K, Martínez-Ugalde I, Fenton TM, Robertson E, Strachan LJ, Jayaraman V, Harcus Y, Naar CM, Wright D, Price DRG, White R, Evans MJ, Bermúdez-Barrientos JR, Li H, Maizels RM, Aroian RV, Nisbet AJ, Abreu-Goodger C, Buck AH. *EMBO Rep.* 2025 Dec 9. doi: 10.1038/s44319-025-00620-4. Online ahead of print. PMID: 41366100

[The association between COVID-19 vaccination with the prevalence of post-COVID conditions in Thai patients with mild COVID-19.](#)

Towachiraporn S, Thongwitokomarn H, Salee P. *Vaccine.* 2025 Dec 4;71:128060. doi: 10.1016/j.vaccine.2025.128060. Online ahead of print. PMID: 41349444

[Is the domestic bivalent HPV vaccine cost-effective compared with quadrivalent or nine-valent HPV vaccines in the context of cervical cancer screening? A modeling study.](#)

Zhang L, Zhang Y, Wang X, Tang C, Fang Y. *BMC Public Health.* 2025 Dec 4. doi: 10.1186/s12889-025-25797-0. Online ahead of print. PMID: 41345624

[Naturally acquired immune responses to alpha-gal in malaria endemic settings and pre-clinical efficacy testing with R21/MM.](#)

Mukhopadhyay ES, Bellamy DG, Tinto H, Hamaluba M, Truby A, Salman AM, Hill AVS. *Vaccine.* 2025 Dec 5;68:127897. doi: 10.1016/j.vaccine.2025.127897. Epub 2025 Nov 1. PMID: 41176969

[A national survey on HPV vaccination status among 42,800 female physicians and nurses in China, 2021.](#)

Pei C, Zeng D, He C, Sun W, Ma J, Liu Y. *Vaccine.* 2025 Dec 2;70:128025. doi: 10.1016/j.vaccine.2025.128025. Online ahead of print. PMID: 41337978

[Herpes zoster vaccine awareness and determinants among Chinese adults aged 60 years: a cross-sectional study.](#)

Dai J, Wang Y, Yuan S, Chen Y, Zhang Z, Zhu L, Liu G, Zeng Q, Qiu Q, Luo C, Deng R, You L. *Expert Rev Vaccines.* 2025 Dec 8. doi: 10.1080/14760584.2025.2596677. Online ahead of print. PMID: 41361910

[Using a mental model approach to undercut the effects of exposure to mRNA vaccination misconceptions: Two randomized trials.](#)

Jamieson KH, Gibson LA, Jamieson PE, Patterson S Jr. *Proc Natl Acad Sci U S A*. 2025 Dec 2;122(48):e2517067122. doi: 10.1073/pnas.2517067122. Epub 2025 Nov 24. PMID: 41284895

[Rotasiiil vaccine effectiveness against rotavirus-associated hospitalizations in the Democratic Republic of the Congo: comparison of multivariate logistic regression and inverse probability treatment weighting methods in a test-negative design.](#)

Luhata Lungayo C, Burnett E, Mulumba A, Milabyo A, Nasaka P, Adhaku R, Volatier E, Tate JE, Parashar U, Diallo AO, Burke RM, Otomba JS, Dommergues MA, Pukuta E, Mwenda JM, Ngoy F, Ngoy M, Mosala N, Muteba D, Domingo DD, Ditekemena J, Launay O, Jouffroy R. *Vaccine*. 2025 Dec 5;68:127944. doi: 10.1016/j.vaccine.2025.127944. Epub 2025 Nov 10. PMID: 41218304

[A single-chain mRNA vaccine co-expressing GPC and NP provides complete protection against lethal Dabie bandavirus challenge in mice.](#)

Li E, He H, Guo X, Wang W, Gong Q, Chen D, Shen Y, Zhou Z, Zhang J, Li Z, Zhao L, Wang C, Wang Y, Chiu S. *Mol Ther Nucleic Acids*. 2025 Oct 30;36(4):102755. doi: 10.1016/j.omtn.2025.102755. eCollection 2025 Dec 9. PMID: 41328299

[NKT cell-dependent PspA-specific IgA production caused by mucosal administration of a novel nanoparticle pneumococcal vaccine.](#)

Nakahira A, Iwaoka H, Sato K, Ishizuka S, Shiroma R, Miyasaka T, Kanno E, Tanno H, Sato Y, Akeda Y, Oishi K, Aoyagi T, Ishii K, Kawakami K. *Vaccine*. 2025 Dec 5;68:127911. doi: 10.1016/j.vaccine.2025.127911. Epub 2025 Oct 31. PMID: 41175650

[Microbiota diversity of *Anopheles gambiae* in Bankeng, southern Cameroon, and its association with *Plasmodium falciparum* infection.](#)

Sandeu MM, Maffo Tatsinkou CG, Dada N, Kouhoué Feukam F, Njiokou F, Hughes GL, Wondji CS. *mSphere*. 2025 Dec 5:e0049025. doi: 10.1128/msphere.00490-25. Online ahead of print. PMID: 41347760

[A single extracellular vesicle-based platform supporting both RBD protein and mRNA vaccination against SARS-CoV-2.](#)

Chung J, Kim KH, An SH, Bae D, Kim HK, Choi Y, Kim JH, Kwon K, Kim SH. *J Control Release*. 2025 Dec 6;114515. doi: 10.1016/j.jconrel.2025.114515. Online ahead of print. PMID: 41360331

[Mass-Standardised Differential Antibody Binding to a Spectrum of SARS-CoV-2 Variant Spike Proteins: Wuhan, Alpha, Beta, Gamma, Delta, Omicron BA.1, BA.4/5, BA.2.75 and BA.2.12.1 Variants-Antibody Immunity Endotypes.](#)

James-Pemberton PH, Kohli S, Twynham J, Westlake AC, Antill A, Olkhov RV, Shaw AM. *Immunology*. 2025 Dec 9. doi: 10.1111/imm.70083. Online ahead of print. PMID: 41365308

[Durability of the Mumps Antibody Response After the Third Dose of MMR Vaccine.](#)

Sowers SB, Nguyen HQ, Masters NB, Mercader S, Colley H, McClure DL, Hickman CJ, Marin M, Crooke SN. *J Infect Dis.* 2025 Dec 8;jiaf520. doi: 10.1093/infdis/jiaf520. Online ahead of print.PMID: 41358808

[Sustained superior humoral immune responses of mRNA vaccines compared to Sputnik V viral vector COVID-19 vaccines in naïve and convalescent populations.](#)

Abbad A, Lerman B, Ehrenhaus J, Ojeda DS, Gleason C, Singh G, Khalil Z, Gonzalez-Reiche AS, Srivastava K, Sesma AF, Gamarnik A, Simon V, Krammer F. *Vaccine.* 2025 Dec 2;70:128018. doi: 10.1016/j.vaccine.2025.128018. Online ahead of print.PMID: 41337980

[Temporal genomic diversity of Dengue virus in South India from 2019 to 2024.](#)

Sundarrajan S, Katta SS, Kn S, Jagtap S, C N. *Acta Trop.* 2025 Dec 4:107934. doi: 10.1016/j.actatropica.2025.107934. Online ahead of print.PMID: 41352409

[To what extent may the duck population be protected after vaccination against highly pathogenic avian influenza? Contributions from a modelling approach and French field data.](#)

Salines M, Andraud M, Scoizec A, Schmitz A, Niqueux E, Pellicer AJ, Bucher K, Gerbier G, Eterradossi N, Grasland B, Le Bouquin S. *Vaccine.* 2025 Dec 5;68:127905. doi: 10.1016/j.vaccine.2025.127905. Epub 2025 Nov 1.PMID: 41176963

[Generation of CD68+ macrophage-depleted NOG mice for in vivo engraftment of human red blood cells.](#)

Ohno Y, Mochizuki M, Kawai K, Goto M, Takahashi R, Ito R. *Int Immunol.* 2025 Dec 3:dxaf072. doi: 10.1093/intimm/dxaf072. Online ahead of print.PMID: 41332185

[Anti-neuraminidase antibody responses in older adults after consecutive vaccinations with enhanced influenza vaccines: a randomized controlled trial.](#)

Daulagala P, Leung YWY, Luk LLH, Ho F, Chu SHN, Lin J, Cheng SMS, Leung NHL, Eichelberger MC, Peiris M, Iuliano AD, Thompson MG, Cowling BJ, Yen HL. *J Infect Dis.* 2025 Dec 8;jiaf616. doi: 10.1093/infdis/jiaf616. Online ahead of print.PMID: 41359521

[Adapting global guidelines to local contexts: optimising community-acquired pneumonia \(CAP\) specific prescribing in Pakistan to counter antimicrobial resistance.](#)

Jamil E, Aziz MM, Amir A, Godman B, Campbell SM, Ullah M, Arooj H, Altowayan WM, Saleem Z. *BMJ Open Respir Res.* 2025 Dec 7;12(1):e003699. doi: 10.1136/bmjresp-2025-003699.PMID: 41360615

[Impact of a single-dose program on varicella hospitalizations and infectious disease inequity in New Zealand: A retrospective cohort study.](#)

Fay MJ, Howe AS, Wilson E, Sinclair O, Best EJ. *Vaccine.* 2025 Dec 6;72:128082. doi: 10.1016/j.vaccine.2025.128082. Online ahead of print.PMID: 41354027

[Short- and Long-term Humoral Response of Immunosuppressed Children to SARS-CoV-2 BNT162b2 Vaccine.](#)

Tagarro A, Gastesi I, Hotterbeekx A, Aguilera-Alonso D, Konnova A, Gupta A, Salso S, Berkell M, Plata MDC, Domínguez-Rodríguez S, Ballesteros Á, Manzanares Á, Oltra M, Villanueva S, Pinto C, Guillén R, Giaquinto C, Moraleda C, Kumar-Singh S. *Pediatr Infect Dis J*. 2025 Dec 5. doi: 10.1097/INF.0000000000005042. Online ahead of print. PMID: 41345863

[Mixed-methods study assessing the acceptability and feasibility of Human Challenge Studies for Disease X in Healthy UK Adults in a SARS-CoV-2 pandemic setting.](#)

Emary KR, Te Water Naude R, Stewart A, Patrick-Smith M, Henry JA, English M, Thomas TM, Douglas N, Moore M, Pollard AJ, Vanderslott S, Hodgson SH. *BMJ Public Health*. 2025 Dec 3;3(2):e003096. doi: 10.1136/bmjph-2025-003096. eCollection 2025. PMID: 41367542

[In Silico Optimization of GAD65₁₁₄₋₁₂₂ Autoantigen for Potential Type 1 Diabetes Antigen-Specific Immunotherapy.](#)

Fu L, Chan KC, Zhong Q, Buratto D, Wu S, Zhou R. *J Phys Chem B*. 2025 Dec 8. doi: 10.1021/acs.jpcc.5c04875. Online ahead of print. PMID: 41362047

[Mathematical Assessment of the Roles of Vaccination and Pap Screening on the Burden of HPV and Related Cancers in Korea.](#)

Park S, Lim H, Gumel AB. *Bull Math Biol*. 2025 Dec 3;87(12):182. doi: 10.1007/s11538-025-01548-5. PMID: 41335351

[Development of a multi-epitope mRNA vaccine candidate for oropouche virus: an in-silico approach for immune response optimization and molecular stability.](#)

Das T, Tamang S, Sen A. *In Silico Pharmacol*. 2025 Dec 5;13(3):203. doi: 10.1007/s40203-025-00470-x. eCollection 2025. PMID: 41357418

[Pre-exposure vaccination in the high-risk population is crucial in controlling mpox resurgence in Canada.](#)

Omame A, Iyaniwura SA, Ebenezer A, Han Q, Wang X, Bragazzi NL, Kong JD, Woldegerima WA. *BMC Infect Dis*. 2025 Dec 3. doi: 10.1186/s12879-025-12172-y. Online ahead of print. PMID: 41340045

[Mesothelin in solid tumors: biology, biomarker utility, and therapeutic targeting.](#)

Ruscito I, Baisheva E, Taube ET, Ioana Braicu E. *Curr Opin Obstet Gynecol*. 2025 Dec 10. doi: 10.1097/GCO.0000000000001083. Online ahead of print. PMID: 41366881

[Exploring the immune responses triggered by vaccine formulations containing the recombinant Schistosoma mansoni 14kDa fatty acid-binding protein.](#)

Maciel PS, Almeida GG, Carvalho GBF, Silva-Pereira RAD, Antonelli LRDV, Fonseca CT. *PLoS One*. 2025 Dec 8;20(12):e0338310. doi: 10.1371/journal.pone.0338310. eCollection 2025. PMID: 41359538

[Faith Community Nurse Public Health Collaboration to Combat Vaccine Hesitancy.](#)

Fuentes SK. *J Christ Nurs*. 2026 Jan-Mar 01;43(1):38-45. doi: 10.1097/CNJ.0000000000001337. Epub 2025 Dec 8. PMID: 41359461

[Concomitant immunity in persistent Leishmania infections: could it represent an evolutionary balance and a vaccine target?](#)

Divenuto F, Gigliotti S, Pavia G, Vitale F, Cortes S, Maia C, Marascio N, Quirino A, Matera G. *Parasit Vectors*. 2025 Dec 8. doi: 10.1186/s13071-025-07188-x. Online ahead of print. PMID: 41361890

[HPV genotype distribution and cervical lesion severity in HPV-positive women: a study from the Guizhou Province cervical cancer screening program.](#)

Luo X, Chen Y, He L, Liu S, Zhang F, Liu B, Zhang H, Qi F. *Viro J*. 2025 Dec 9. doi: 10.1186/s12985-025-03041-w. Online ahead of print. PMID: 41366696

[Eimeria tenella apical membrane 2 overexpression enhances pathogenicity and immunity in chickens.](#)

Wu S, Wang L, Wang J, Han W, Bai J, Zhao F, Yu Y, Zhao Q, Zhu S, Han H, Dong H. *Parasit Vectors*. 2025 Dec 6. doi: 10.1186/s13071-025-07185-0. Online ahead of print. PMID: 41353194

[Potential Link Between COVID-19 Infection/Vaccination and the Onsets of TAFRO Syndrome and Idiopathic Multicentric Castleman Disease.](#)

Umeda M, Mohamed L, Umetsu A, Otsuka M, Endo Y, Shimizu T, Fukui S, Sumiyoshi R, Koga T, Kawakami A. *Immunol Lett*. 2025 Dec 7:107123. doi: 10.1016/j.imlet.2025.107123. Online ahead of print. PMID: 41365367

[Technological advances in mRNA delivery and engineering for therapeutic cancer vaccines.](#)

Uchida S. *Jpn J Clin Oncol*. 2025 Dec 8:hyaf199. doi: 10.1093/jjco/hyaf199. Online ahead of print. PMID: 41359436

[Identification of Polysialic Acid and Chondroitin-like Polysaccharides of *Moraxella bovis* Strains Associated with Infectious Bovine Keratoconjunctivitis.](#)

Vionnet J, Peterson DC, Loy JD, Wynn E, Battistel MD, Hille M, Clawson ML, Vann W. *ACS Infect Dis*. 2025 Dec 4. doi: 10.1021/acsinfecdis.5c00628. Online ahead of print. PMID: 41343704

[Differences in life projects among adolescents in situations of social vulnerability during the COVID-19 pandemic.](#)

Komatsu AV, Pessoa ASG. *Psicol Reflex Crit*. 2025 Dec 8. doi: 10.1186/s41155-025-00373-y. Online ahead of print. PMID: 41359130

[Molecular characterization of arenavirus defective viral genomes reveals sequence features associated with their formation.](#)

Hoenen T, Bohn P, Herndler S, Klamke M-N, Müller A, Groseth A. *J Virol*. 2025 Dec 9:e0197825. doi: 10.1128/jvi.01978-25. Online ahead of print. PMID: 41363842

[Modelling the epidemiological impact and cost-effectiveness of possible changes to the meningococcal vaccination schedule for adolescents and young adults in the United States.](#)

Shin T, Cristeau O, Upegui A, Neary MP, Robertson CA, Galarza K, Clay E, Wu J. BMC Public Health. 2025 Dec 4. doi: 10.1186/s12889-025-25726-1. Online ahead of print. PMID: 41345602

[Integrated systems vaccinology reveals distinct metabolic responses to SARS-CoV-2 infection and DNA-based vaccines in ferrets.](#)

Ahlén G, Ambikan A, Mikaeloff F, Rezene S, Yan J, Nikouyan N, Revanna CB, Appelberg S, Mirazimi A, Sällberg M, Neogi U, Gupta S. Biomed Pharmacother. 2025 Dec 4;193:118858. doi: 10.1016/j.biopha.2025.118858. Online ahead of print. PMID: 41349254

[17,18-epoxyeicosatetraenoic acid ameliorates mRNA-LNP-induced local inflammation by inhibiting neutrophil infiltration.](#)

Iemitsu K, Yoshii K, Hirayama Y, Liu Z, Hifumi S, Kondo S, Ishida K, Nagatake T, Kunisawa J. J Lipid Res. 2025 Dec 5;100956. doi: 10.1016/j.jlr.2025.100956. Online ahead of print. PMID: 41354324

[Seroprevalence of pathogenic leptospira in domiciled and stray dogs from subtropical Mexico.](#)

Andrade-Silveira E, Segura-Correa JC, Ortega-Pacheco A, Cárdenas-Marrufo MF, Gutiérrez-Blanco E, Jiménez-Coello M. Vet Res Commun. 2025 Dec 8;50(1):67. doi: 10.1007/s11259-025-11016-z. PMID: 41359150

[First evaluation of the peptide RmS-17 immunization against Rhipicephalus microplus: a controlled trial in cattle.](#)

Lagunes-Quintanilla R, Castañeda-Arriola R, Camas-Pereyra R, Castro-Saines E, Hernández-Ortiz R, Rangel-Quintos J, Mendoza-Martínez N. Vaccine. 2025 Dec 3;72:128047. doi: 10.1016/j.vaccine.2025.128047. Online ahead of print. PMID: 41344035

[Targeted assessment of prevalence of zero-dose and under-immunised children in Bangladesh.](#)

Jannat Z, Das H, Jannatul T, Ali MW, Alam N, Morgan C, Oliveras E, Corrêa GC, Reynolds HW, Uddin MJ. BMJ Glob Health. 2025 Dec 5;10(12):e018844. doi: 10.1136/bmjgh-2024-018844. PMID: 41360479

[Influenza A\(H5N8\) vaccine induces humoral and cell-mediated immunity against highly pathogenic avian influenza clade 2.3.4.4b A\(H5N1\) viruses in at-risk individuals.](#)

Liedes O, Reinholm A, Ekström N, Haveri A, Solastie A, Vara S, Rijnink WF, Bestebroer TM, Richard M, de Vries RD, Jalkanen P, Lindh E, Ikonen N, Grifoni A, Sette A, Laaksonen T, Holopainen R, Kakkola L, Lappalainen M, Syrjänen RK, Kolehmainen P, Julkunen I, Nohynek H, Melin M. Nat Microbiol. 2025 Dec 5. doi: 10.1038/s41564-025-02183-5. Online ahead of print. PMID: 41350922

[Dynamics of social inequalities in severe COVID-19 outcomes in metropolitan France from 2020 to 2022.](#)

Smaïli S, Pelat C, Chatignoux E, Sireyjol A, Kelly-Irving M, Gaudart J, Delpierre C, Vandentorren S. Commun Med (Lond). 2025 Dec 5;5(1):516. doi: 10.1038/s43856-025-01214-w. PMID: 41350921

[Feeding a Bacillus-based probiotic to beef heifers during stress challenges: effects on feed intake, immune, and metabolic responses.](#)

Mackey SJ, Cooke RF, De Souza IS, Monteiro GA, De Souza WA, Copani G, Cappellozza BI. *J Anim Sci*. 2025 Dec 3;skaf416. doi: 10.1093/jas/skaf416. Online ahead of print. PMID: 41335446

[Immunization and Cardiovascular Disease in Latin America. The CorVacc Study: Results.](#)

Wyss F, Lopez-Santi R, Piskorz D, Gonzalez HM, Gutierrez LY, Gupta S, Munera-Echeverri A, Santi PL, Piskorz G, Ullauri V, Gomez JE, Del Sueldo M, Almonte C, Mendez M, Valdez O, Ponte-Negretti CI, Rivera MAM, Rivera IR, Barragan AP, Villar R, Effio J, Pineda JAR, Berrospi P, Barrientos AI, Silvera N, Jordan E, Lopez SAX, Quezada D, Arguello A, Perez G, Baranchuk A; Corvacc Study Investigators. *Glob Heart*. 2025 Dec 5;20(1):108. doi: 10.5334/gh.1496. eCollection 2025. PMID: 41356096

[Longitudinal monitoring of cellular immunity by the ex vivo activation of genes in leukocytes \(EAGL\) assay highlights potential markers of mRNA COVID-19 vaccine efficacy against breakthrough symptoms.](#)

Saito T, Couzinet A, Suzuki T, Shimomura M, Ryo A, Miyakawa K, Katayama Y, Nakatsura T. *Vaccine*. 2025 Dec 5;68:127942. doi: 10.1016/j.vaccine.2025.127942. Epub 2025 Nov 6. PMID: 41202608

[The impossible confounder: Quantifying the limits of alternative explanations for COVID-19 vaccine effectiveness.](#)

Costa T. *PLoS One*. 2025 Dec 4;20(12):e0336063. doi: 10.1371/journal.pone.0336063. eCollection 2025. PMID: 41343587

[Development of dectin-1-binding peptides targeting dendritic cells for antigen delivery via ribosome display.](#)

Kawaguchi Y, Sarker MS, Yokoyama M, Nakaya M, Hosokawa T, Kamiya N, Goto M. *J Biosci Bioeng*. 2025 Dec 6;S1389-1723(25)00303-2. doi: 10.1016/j.jbiosc.2025.11.005. Online ahead of print. PMID: 41354566

[SARS-CoV-2 mRNA vaccines: unresolved mechanisms of myocardial damage.](#)

Glossmann HH. *Arch Toxicol*. 2025 Dec 8. doi: 10.1007/s00204-025-04252-4. Online ahead of print. PMID: 41361115

[Comparison of efficacy, safety, immune response of dNS1 LAIV and cold-adapted LAIV in a mouse model.](#)

Wang X, Zhang X, Chen C, Chen H, Chen Y, Wu R, Chen X, Lu Z, Xia N, Chen J, Chen Y. *NPJ Vaccines*. 2025 Dec 7. doi: 10.1038/s41541-025-01320-9. Online ahead of print. PMID: 41354864

[Pre-existing cross-reactive immunity to highly pathogenic avian influenza 2.3.4.4b A\(H5N1\) virus in the United States.](#)

Li ZN, Liu F, Jung YJ, Jefferson S, Holiday C, Gross FL, Tzeng WP, Carney P, Kates A, York IA, Safdar N, Zhou J, Medina MJ, Cioce V, Oshansky CM, Todd Davis C, Stevens J, Tumpey T, Levine MZ. *Nat Commun*. 2025 Dec 8;16(1):10954. doi: 10.1038/s41467-025-66431-2. PMID: 41360781

[Post-quadri-vaccinal SARS-CoV-2 antibodies in Vietnamese patients with end-stage renal disease: A prospective cohort study.](#)

Nguyen NN, Huynh GM, Mai THN. *Medicine (Baltimore)*. 2025 Dec 5;104(49):e46311. doi: 10.1097/MD.00000000000046311. PMID: 41366913

[Transforming provider-patient vaccine conversations: a randomised trial on presumptive communication training.](#)

Bartmann N, Lindemans JW, Sloan CE, Vojtek I, van Wouw M. *BMJ Lead*. 2025 Dec 9:leader-2025-001350. doi: 10.1136/leader-2025-001350. Online ahead of print. PMID: 41365638

[Contrasting pre-vaccine COVID-19 waves in Italy through functional data analysis.](#)

Boschi T, Di Iorio J, Testa L, Cremona MA, Chiaromonte F. *Sci Rep*. 2025 Dec 8. doi: 10.1038/s41598-025-29316-4. Online ahead of print. PMID: 41360858

[Spatial analysis of meningococcal c vaccination coverage in children in BRAZIL between 2012 and 2024.](#)

Pereira PLG, Rodrigues GJC, Ferraz ML, Souza MD, da Silva TPR, Matozinhos FP. *BMC Pediatr*. 2025 Dec 7. doi: 10.1186/s12887-025-06305-0. Online ahead of print. PMID: 41354778

[WSK-V102C COVID-19 vaccine effectiveness against SARS-CoV-2 JN.1 symptomatic infection among adults 60 years and older: a prospective observational cohort study in Shaanxi Province, China, 2024.](#)

Tang L, Hu W, Li Y, Guo C, Feng Z, Bai N, Wang R, Zhang S, Wang Y, Liu S, Wang X, Liu Q, Liu X, Rodewald LE, Wang F, Yin Z. *BMC Public Health*. 2025 Dec 5. doi: 10.1186/s12889-025-25750-1. Online ahead of print. PMID: 41350702

[Awareness of HPV, HPV vaccine and HPV-associated cancers among Arab Americans.](#)

Al-Antary N, Siddiqui RF, Gonzalez K, Nair M, Gilbert M, Fakhoury L, Vu M, Siddiqui F, Adjei Boakye E. *Sci Rep*. 2025 Dec 8. doi: 10.1038/s41598-025-31575-0. Online ahead of print. PMID: 41361509

[Evaluating Modes of Influenza Transmission \(EMIT-2\): Insights from a Controlled Human Influenza Virus Infection Transmission Trial \(CHIVITT\).](#)

Lai J, Sobhani H, Coleman KK, Tai SS, Hong F, Maldonado IS, Esparza Y, McPhaul KM, Zhu S, DeVoe DL, Ortiz JR, Chen S, Yellin T, Carreno JM, Krammer F, Cowling BJ, Gordon A, Chen WH, Srebric J, Milton DK; EMIT-2 Study Team. *medRxiv [Preprint]*. 2025 Dec 2:2025.04.28.25326458. doi: 10.1101/2025.04.28.25326458. PMID: 40657316

[The public health impact of extending the catch-up nonavalent human papillomavirus vaccination program to 2028 in Japan: a model-based study.](#)

Diakite I, Tobe K, You X, Chen YT, Palmer C, Matsuki T. *BMC Public Health*. 2025 Dec 6. doi: 10.1186/s12889-025-25684-8. Online ahead of print. PMID: 41353314

[Influenza vaccines promote humoral and cellular immune responses: a randomized, double-blind, phase 3 trial.](#)

Rodríguez-Guilarte L, Méndez C, Reyes A, Rios M, Román F, Moreno-Tapia D, Cabrera A, Rivera DB, Gutiérrez-Vera C, Palacios PA, Schilling A, Aljaro S, Bascur F, Rojas Á, Del Río C, Astudillo P, Perez CM, Perez L, Oyonarte M, Fernández Vásquez PE, Feijoo RM, Beltrán Campos D, Tovar De Sousa C, Castejón A, Grandón S, Villarroel M, Jara P, Twele L, Angélica Domínguez M, González-Aramundiz JV, Álvarez-Figueroa MJ, Yang W, Xin Q, Carreño LJ, Calvo M, Bueno SM, Peñaloza HF, González PA, Kalergis AM. *Nat Commun.* 2025 Dec 7. doi: 10.1038/s41467-025-67102-y. Online ahead of print. PMID: 41354738

[A Mobile App to Enhance Awareness of Vaccination in Adults With Psoriasis and Atopic Dermatitis: Development and Preliminary Evaluation Study.](#)

Gasparini G, Panatto D, De Kermarek I, Valchi L, Massaro E, Lai PL, Burlando M, Icardi G, Cozzani E. *JMIR Form Res.* 2025 Dec 9;9:e80113. doi: 10.2196/80113. PMID: 41364924

[Poly \(allylamine hydrochloride\)-selenium Nanoparticles Inhibit Porcine Reproductive and Respiratory Syndrome Virus by Targeting DDX5 and Reactive Oxygen Species.](#)

Yang W, Xu Y, Kang R, Zhang M, Zhang Y, Yang Z, Jing H, Liu Y, Li J, Ge Y, Feng H, Zhou L, Pi J, Liu J. *Antiviral Res.* 2025 Dec 5;106324. doi: 10.1016/j.antiviral.2025.106324. Online ahead of print. PMID: 41354131

[Lymph node paracortex-inspired on-a-chip recapitulating immunosenescence: a cancer vaccine immunogenicity and antitumoral efficacy screening platform.](#)

Maity S, Hassani Najafabadi A, Kawakita S, Khorsandi D, Yilgor C, Jewell C, Mohaghegh N, Dokmeci MR, Khademhosseini A, Jucaud V. *Lab Chip.* 2025 Dec 9. doi: 10.1039/d5lc00533g. Online ahead of print. PMID: 41362262

[Rabies Despite Post-Exposure Prophylaxis in High-Burden Settings: Vaccine Failure or Gaps in Healthcare Delivery?](#)

Lodha L, Gupta S, Ashwini MA, Chandel S, Mani RS. *Clin Infect Dis.* 2025 Dec 6:ciaf662. doi: 10.1093/cid/ciaf662. Online ahead of print. PMID: 41350240

[Identifying critical windows of susceptibility to perinatal lead exposure on child serum vaccine antibody levels.](#)

Colicino E, Feiler MO, Austin C, Rosa MJ, McRae N, Quataert SA, Thevenet-Morrison K, Téllez-Rojo MM, Lamadrid-Figueroa H, Tavares ZQ, Shim YK, Arora M, Wright RO, Jusko TA. *Am J Epidemiol.* 2025 Dec 2;194(12):3441-3450. doi: 10.1093/aje/kwaf012. PMID: 39894752

[Host-pathogen hybrid glycoalyx mimicking lipid nanoparticles induce trained immunity as a promising platform for universal vaccines.](#)

Tang X, Sun Y, Zhang J, Li H, Lu Y, Yuan L, Li H, Liu X, Song Y, Zhang Y, Deng Y. *J Control Release.* 2025 Dec 5;114489. doi: 10.1016/j.jconrel.2025.114489. Online ahead of print. PMID: 41354244

[Anti-PD-L1-IFN-alpha-adjuvanted HBsAg vaccine overcomes HBV immune tolerance through targeting both DCs and macrophages.](#)

Meng CY, Liang Y, Xu L, Li H, Guo J, Xu H, Wang F, Fu YX, Peng H. *JCI Insight*. 2025 Dec 8;10(23):e198097. doi: 10.1172/jci.insight.198097. eCollection 2025 Dec 8. PMID: 41355797

[A novel alphavirus-based saRNA platform for enhanced vaccination efficacy and organ-specific targeting.](#)

Sun Z, Liu Y, Zhang H, Ge T, Pan Y, Liu Y, Wu M, Shan T, Zhu G, Wu Q, Chen K. *Vaccine*. 2025 Dec 4;72:128055. doi: 10.1016/j.vaccine.2025.128055. Online ahead of print. PMID: 41349243

[Electrochemical immunosensor for sensitive detection of Crimean-Congo hemorrhagic fever virus based on a flexible electrode of carbon nanofibers modified with copper \(II\) phosphate nanoflowers.](#)

Rahmati Z, Raouf JB. *Biosens Bioelectron*. 2025 Dec 3;295:118291. doi: 10.1016/j.bios.2025.118291. Online ahead of print. PMID: 41365106

[Natural killer T cells play a significant role in preventing Coxsackievirus A10 infection through an adeno-based vaccine expressing enterovirus-like particles.](#)

Yu SL, Chung NH, Chen YC, Ho HM, Chang YH, Sung HH, Wu SR, Lin YC, Chow YH. *Vaccine*. 2025 Dec 5;68:127909. doi: 10.1016/j.vaccine.2025.127909. Epub 2025 Oct 31. PMID: 41175651

[Development of a Conjugate Vaccine Targeting Human IgE for Long-Term Prevention of Anaphylaxis.](#)

Serra V, Reber LL. *Allergy*. 2025 Dec 4. doi: 10.1111/all.70099. Online ahead of print. PMID: 41342239

[Rumen microbiome profiles of dairy cattle are affected by the presence of, and vaccination against, the abomasal parasitic nematode *Ostertagia ostertagi*.](#)

Lima J, McNeilly TN, Auffret MD, Steele P, Frew D, Martínez-Álvaro M, Dewhurst RJ, Watson M, Roehe R. *Sci Rep*. 2025 Dec 8. doi: 10.1038/s41598-025-30604-2. Online ahead of print. PMID: 41360901

[Dermatologist's role in addressing rising vaccine hesitancy.](#)

Shidhaye A, Schwartzman G, Zlotoff B, Grant-Kels J. *J Am Acad Dermatol*. 2025 Dec 3;S0190-9622(25)03308-0. doi: 10.1016/j.jaad.2025.10.158. Online ahead of print. PMID: 41349722

[A universal boosting strategy for adoptive T cell therapy using a paired vaccine/chimeric antigen receptor.](#)

Burchett R, Morris CG, Ishak M, Serniuck NJ, Cummings DT, Baker CL, Marius R, Kazdhan N, Silvestri CM, Bell J, Lichty BD, Walsh SR, Wan Y, Hammill JA, Bramson JL. *Cancer Immunol Res*. 2025 Dec 8. doi: 10.1158/2326-6066.CIR-25-0070. Online ahead of print. PMID: 41359369

[Corrigendum to "Monitoring strategies after the incorporation of vaccines into national immunization programs: a systematic review" \[*Vaccine* 66 \(2025\) 127850\].](#)

de Melo Araújo AC, Frugoli AG, de Sena Gonçalves JE, Pércio J, Rangel PSC, da Fonseca Victor TN, Matozinhos FP, Fernandes ÉG. *Vaccine*. 2025 Dec 5;68:127929. doi: 10.1016/j.vaccine.2025.127929. Epub 2025 Nov 5. PMID: 41197441

[Improved immune response against influenza A viruses with receipt of a recombinant influenza vaccine in healthcare personnel with prior low antibody response to egg-based influenza vaccines, Israel, 2019-20.](#)

Sumner KM, Katz M, Hirsch A, Peretz A, Greenberg D, Martin ET, Truscon R, Edwards LJ, Grant L, Noble EK, Newes-Adeyi G, Dreiherr J, Fry A, Flannery B, Azziz-Baumgartner E, Monto AS, Levine MZ, Thompson M, Balicer R, Fowlkes A. *J Infect Dis.* 2025 Dec 3; *jiaf605*. doi: 10.1093/infdis/jiaf605. Online ahead of print. PMID: 41330417

[COVID-19 pandemic and waning immunity disrupted measles population immunity and strategies to close immunity gaps.](#)

Wang W, Wang Q, Zhao S, Zhou X, Crooke SN, Salje H, Jit M, Yu H. *Nat Commun.* 2025 Dec 9; *16*(1):10966. doi: 10.1038/s41467-025-65955-x. PMID: 41365850

[Predictors of virological outcomes after analytical interruption of antiretroviral therapy and HTI vaccination in early treated people with HIV-1.](#)

Bailón L, Alarcón-Soto Y, Arribas JR, Curran A, Llano A, Cedeño S, Paredes R, Vendrame E, SenGupta D, Wallin JJ, Geleziunas R, Malice MP, McGowan I, Brander C, Moltó J, Mothe B. *Commun Med (Lond).* 2025 Dec 8. doi: 10.1038/s43856-025-01266-y. Online ahead of print. PMID: 41361072

[Estimating diphtheria, acellular pertussis, tetanus vaccine \(DTaP\) effectiveness in preventing pertussis in children aged three months to six years old in Shenzhen area, China, case control study.](#)

Wang XL, Xu JQ, Ye BL, Liu F, Zhou JM. *Vaccine.* 2025 Dec 3; *71*:128024. doi: 10.1016/j.vaccine.2025.128024. Online ahead of print. PMID: 41343986

[Day-old vaccination with the Vaxsafe MG304 live-attenuated vaccine protects chickens from tracheal transcriptional changes induced by chronic infection with *Mycoplasma gallisepticum*.](#)

Kamathewatta KI, Kanci Condello A, Ekanayake D, Noormohammadi AH, Young ND, Browning GF, Tivendale KA, Wawegama NK. *Vaccine.* 2025 Dec 5; *68*:127915. doi: 10.1016/j.vaccine.2025.127915. Epub 2025 Nov 6. PMID: 41202614

[Impact of obesity on COVID-19 CoronaVac and ChAdOx1-S vaccine efficacy.](#)

Cortez MV, Martins A, Nascimento J, Chui FMDS, Rodrigues MGA, Bastos T, Lemos SM, Honorato E, Gomes E, Abreu-Netto RL, Fernandes S, Silva-Neto AV, Sachett A, Silva BM, Mouta GS, Cordeiro JSM, Baía-da-Silva DC, Brito-Sousa JD, Pessoa KP, Monteiro W, Naveca F, Sampaio V, Almeida-Val F, Melo G, Mourão MP, Lacerda M. *BMC Infect Dis.* 2025 Dec 9. doi: 10.1186/s12879-025-12295-2. Online ahead of print. PMID: 41366307

[A behavioral game-theoretic model for vaccination with fractional-order imitation and aspiration dynamics.](#)

Ullah MS, Kabir KMA, Wang J. *Sci Rep.* 2025 Dec 8. doi: 10.1038/s41598-025-31669-9. Online ahead of print. PMID: 41360991

[Immune profiling of mpox survivors reveals divergent durability of antibody and T cell responses.](#)

Wang Y, Cai R, Zhu A, Chen J, Chen C, Zhou L, Xing X, Zhong Q, Wei P, Li X, Zhang Z, Zhang Y, Chen L, Gao J, Li S, Xiong X, Qu B, Huang S, Lin Z, Bai H, Hu Q, Zhao J, Shi Y, Yang Y, Qin P, Zhang L, Zhao J. *Nat Commun.* 2025 Dec 4. doi: 10.1038/s41467-025-67266-7. Online ahead of print. PMID: 41345407

[Neonatal BCG vaccination to prevent respiratory infections in the first 5 years of life: results from the MIS BAIR randomised controlled trial.](#)

Messina NL, Pittet LF, Forbes EK, Francis KL, Gardiner K, Flanagan KL, Ponsonby AL, Robins-Browne R, Shann F, South M, Vuillermin P, Donath S, Casaz D, Curtis N; Melbourne Infant Study: BCG for Allergy and Infection Reduction (MIS BAIR) Group. *Vaccine.* 2025 Dec 2;69:127958. doi: 10.1016/j.vaccine.2025.127958. Online ahead of print. PMID: 41337911

[Enhanced subchronic cardiac stress of high doses of a novel SARS-CoV-2 mRNA vaccine candidate in streptozotocin-induced diabetic mice.](#)

Jo H, Yoon S, Cho S, Lee E, Kim N, Choi EB, Park I, Park S, Lee NY, Jeon Y, An HW, Park JW, Keum G, Nam JH, Yun JW. *Food Chem Toxicol.* 2025 Dec 5;208:115891. doi: 10.1016/j.fct.2025.115891. Online ahead of print. PMID: 41354119

[Disease Trends and Mortality from Invasive Pneumococcal Disease: A Long-Term Population-Based Study.](#)

Bragason HT, Rögnvaldsson KG, Hernandez UB, Erlendsdóttir H, Gottfreðsson M. *Clin Infect Dis.* 2025 Dec 5:ciaf670. doi: 10.1093/cid/ciaf670. Online ahead of print. PMID: 41351192

[Hesitancy regarding providing vaccine recommendations among clinicians in China: Analysis based on the behavior and social driver model.](#)

Cao Y, Liu Y, Jiang M, Wang Q, Liu S, Li Y, Xu Y, Yang W, Jia M, Feng L. *Chin Med J (Engl).* 2025 Dec 3. doi: 10.1097/CM9.0000000000003852. Online ahead of print. PMID: 41342240

[Structural and Functional Impacts of SARS-CoV-2 Spike Protein Mutations: Insights From Predictive Modeling and Analytics.](#)

Netsey EK, Naandam SM, Asante Jnr J, Abraham KE, Yadem AC, Owusu G, Shaffer JG, Srivastav SK, Doumbia S, Owusu-Dabo E, Morkle CE, Yemeh D, Manortey S, Yankson E, Sangare M, Kakraba S. *JMIR Bioinform Biotechnol.* 2025 Dec 8;6:e73637. doi: 10.2196/73637. PMID: 41359941

[Seroconversion following varicella vaccination in children and adolescents with nephrotic syndrome.](#)

Ponnachan S, Deepthi B, Dhodapkar R, Ramamurthy N, Krishnasamy S, Krishnamurthy S. *Pediatr Nephrol.* 2025 Dec 5. doi: 10.1007/s00467-025-07089-2. Online ahead of print. PMID: 41348128

[Leveraging complex network features improves vaccine stance classification.](#)

Francesco D, Niccolò B, Mauro F, Davide G, Daniel R. *Sci Rep.* 2025 Dec 8. doi: 10.1038/s41598-025-27487-8. Online ahead of print. PMID: 41360844

[Role of adjuvants in the efficacy of an IZUMO1-based immunocontraceptive vaccine in mice.](#)

Hernandez-Franco JF, Abdelkhalek A, Zhang L, Ibrahim OM, Perez DC, Flora D, Upatising V, Ostafe R, HogenEsch H. *Vaccine*. 2025 Dec 6;72:128071. doi: 10.1016/j.vaccine.2025.128071. Online ahead of print. PMID: 41354026

[Immunogenetic insights into matching bivalent inactivated Payavax G79® for sustainable poultry vaccination against NDV-GVII and H9N2.](#)

Jamour P, Babaeimarzangou SS, Daneshvar Hosseini N, Gholizadeh Gigloo M, Sheini Mehrabzadeh R, Mohammadi T, Khademi Z, Shafaati M. *Arch Virol*. 2025 Dec 5;171(1):13. doi: 10.1007/s00705-025-06483-3. PMID: 41348225

[Learning from the omicron BA.4/5 dominance: Strategies for future vaccination preparedness.](#)

Jiang J, Lam KF, Lau EHY, Yin G, Lin Y, Cowling BJ. *Vaccine*. 2025 Dec 3;71:128058. doi: 10.1016/j.vaccine.2025.128058. Online ahead of print. PMID: 41343988

[Assessing AI's cognitive abilities for scientific discovery in the field of systems vaccinology.](#)

Rodriguez-Coffinet L, Kazmin D, Pulendran B. *Sci Immunol*. 2025 Dec 5;10(114):eadx1794. doi: 10.1126/sciimmunol.adx1794. Epub 2025 Dec 5. PMID: 41348860

[Machine learning enables de novo multiepitope design of *Plasmodium falciparum* circumsporozoite protein to target trimeric L9 antibody.](#)

Nelson JAD, Garfinkle SE, Lin ZJ, Park J, Kim AJ, Bayruns K, McCanna ME, Konrath KM, Agostino CJ, Kulp DW, Odom John AR, Pallesen J. *Proc Natl Acad Sci U S A*. 2025 Dec 9;122(49):e2512358122. doi: 10.1073/pnas.2512358122. Epub 2025 Dec 3. PMID: 41337490

[Burden of dog bites and associated healthcare seeking behavior for rabies post-exposure prophylaxis in North and South Shahdara municipal zones of Delhi, India.](#)

Yathagiri N, Khan AM, Sharma R, Agarwal A, Nengminza Sangma RV. *BMC Public Health*. 2025 Dec 8. doi: 10.1186/s12889-025-25860-w. Online ahead of print. PMID: 41354795

[Persistence of SARS-CoV-2 S IgG Antibodies in Children Post-COVID-19 and the Association of Antibody Levels with Vaccination Status.](#)

López EL, Tineo MS, Di Gregorio F, Pavan MF, Bonnin FA, Torrado LE, Karp PJ, Toledano A, Caratozzolo A, Nemirovsky SI, Contrini MM, Ibañez LI, Talarico LB. *Curr Microbiol*. 2025 Dec 9;83(1):61. doi: 10.1007/s00284-025-04627-x. PMID: 41364246

[Comparing uptake of high-dose and standard-dose influenza vaccination at the practice and patient level in Germany.](#)

Meyer AC, Braegelmann K, Orozco-Ruiz X, Kruppert S, Damm O. *Vaccine*. 2025 Dec 7;71:128075. doi: 10.1016/j.vaccine.2025.128075. Online ahead of print. PMID: 41360028

[Molecular and epidemiological analysis of measles vaccine-associated rash illnesses in Shandong province, China, 2014-2021.](#)

Wang S, Fang X, Liu X, Liu Y, Xiong P, Xu Q, Zhang L, Chen M, Tao Z, Xu A. BMC Infect Dis. 2025 Dec 9. doi: 10.1186/s12879-025-12277-4. Online ahead of print. PMID: 41366743

[Erratum: "Coffee and Green Tea Consumption With the Risk of COVID-19 Among the Vaccine Recipients in Japan: A Prospective Study" \[J Epidemiol 34\(9\) \(2024\) 444-452\].](#)

Islam Z, Yamamoto S, Mizoue T, Konishi M, Ohmagari N. J Epidemiol. 2025 Dec 5;35(12):521. doi: 10.2188/jea.JE20250309. Epub 2025 Oct 31. PMID: 40619244

[RSV epidemiology in Italian adults over 60: a multicenter cross-sectional study.](#)

Novazzi F, Pellegrinelli L, Giardina FAM, Acciarri C, Menzo S, Vian E, Biscaro V, Piccirilli G, Lazzarotto T, Uceda Renteria S, Callegaro A, Ferrari G, Pagani E, Masi E, Galli C, Tiberio C, Esposito M, Pierangeli A, Antonelli G, Lalle E, Maggi F, Mauro MV, Colacicco AM, Chironna M, Baldanti F, Mancini N, Piralla A, Pariani E; AMCLI GLIViRe Working group. J Infect Chemother. 2025 Dec 2;32(1):102881. doi: 10.1016/j.jiac.2025.102881. Online ahead of print. PMID: 41344482

[The blocking efficacy and safety of tenofovir disoproxil fumarate tablets on mother-to-child transmission in pregnant women with high serum HBV DNA load: a retrospective cohort study.](#)

Wei Q, Song L, Song S, Zhang X, Qi X, Li K, Wang S, Liang Q. BMC Pregnancy Childbirth. 2025 Dec 4. doi: 10.1186/s12884-025-08501-3. Online ahead of print. PMID: 41345578

[Corrigendum to "A novel vaccine strategy against brucellosis using Brucella abortus multi-epitope OMPs vaccine based on Lactococcus lactis live bacterial vectors" \[Int. Immunopharmacol. 134 \(2024\) 112204\].](#)

Piri-Gharaghie T, Ghajari G, Rezaeizadeh G, Adil M, Mahdi MH. Int Immunopharmacol. 2025 Dec 3;166:115559. doi: 10.1016/j.intimp.2025.115559. Epub 2025 Sep 25. PMID: 41006143

[What is actually the emerging evidence about non-specific vaccine effects in randomized trials from the Bandim Health Project?](#)

Støvring H, Ekstrøm CT, Schneider JW, Strøm C. Vaccine. 2025 Dec 5;68:127937. doi: 10.1016/j.vaccine.2025.127937. Epub 2025 Nov 12. PMID: 41233263

[Secular trend in hepatitis A infection and effect of hepatitis a vaccination: A nationwide surveillance in Taiwan, 2019-2020.](#)

Chang KC, Chang MH, Chen HL, Wu JF, Su WJ, Yang YJ, Lu FT, Chang YC, Ni YH. J Formos Med Assoc. 2025 Dec 8;S0929-6646(25)00646-1. doi: 10.1016/j.jfma.2025.12.002. Online ahead of print. PMID: 41365716

[Sociodemographic and Clinical Characteristics of Rotavirus Diarrhea in Children Aged Under 5 Years in Odisha After the Introduction of Rotavirus Vaccine: A Hospital-Based Surveillance Study.](#)

Mohanty P, Mishra P, Pradhan SK, Ray RK, Roul L, Chaudhary VS, Machathi A, Kharat N, Varghese T, Ramasamy AV. *Indian J Pediatr.* 2025 Dec 9. doi: 10.1007/s12098-025-05801-6. Online ahead of print. PMID: 41361108

[Human papillomavirus vaccination and herpes simplex virus infection: A cross-sectional analysis of young women in the United States.](#)

Hu J, Han H, Zhu J, Shan Y. *Int J STD AIDS.* 2025 Dec 7;9564624251406411. doi: 10.1177/09564624251406411. Online ahead of print. PMID: 41353593

[Behavioural and social drivers of immunisation among zero dose children in pastoralist communities of Ethiopia: a qualitative study.](#)

Biadigln MT, Gelana N, Girma E, Abebe F, Mon HS, Tadesse Y, Ayalew Kokebie M, Gedlu T, Alemayehu H, Bikes T, Eshetu Y, Kasaye M, Endale A, Sharma R, Getachew H. *BMJ Open.* 2025 Dec 5;15(12):e105253. doi: 10.1136/bmjopen-2025-105253. PMID: 41360473

[Combination therapy with VEGFR2 nanoliposomal peptide and paclitaxel in murine models of melanoma: a promising strategy for enhancing the efficacy of cancer immunotherapy.](#)

Zahedipour F, Vahdat-Lasemi F, Farhoudi L, Hosseinikhah SM, Amiri A, Barati M, Sankian M, Zamani P, Gheybi F, Jamialahmadi K, Jaafari MR. *Int Immunopharmacol.* 2025 Dec 8;169:116008. doi: 10.1016/j.intimp.2025.116008. Online ahead of print. PMID: 41365201

[Prevalence and Correlates of Anal HPV Infection Among Men Who Have Sex with Men in Brazil: A Respondent-Driven Sampling Study.](#)

Kops NL, Eidt G, Martins RS, de Miranda GP, Camargo TR, Aqua CBD, Pinheiro BHG, de Brito ES, Bandeira IC, Junior PRD, Varela APM, Comerlato J, Fetzner T, Maranhão AGK, Bigolin A, da Paixão ABF, Gaspar PC, Wendland E. *Int J Infect Dis.* 2025 Dec 6;108292. doi: 10.1016/j.ijid.2025.108292. Online ahead of print. PMID: 41360216

[Impact of HPV vaccination after a diagnosis of cervical HSIL - a case-control study.](#)

Vieira-Baptista P, Lima-Silva J, Freitas G, Gonçalves M, Coelho C, Melo C, Pinto C, Preti M. *Expert Rev Anticancer Ther.* 2025 Dec 9. doi: 10.1080/14737140.2025.2601767. Online ahead of print. PMID: 41363551

[Generation of a shelf-stable, broadly-reactive influenza vaccine formulated with TLR4, TLR7/8, or TLR9 stimulating adjuvants.](#)

Richardson RA, Moon C, Sands CM, Nelson R, Christensen DJ, Davenport GJ, Owens DE 3rd, Ross TM. *Vaccine.* 2025 Dec 5;72:128028. doi: 10.1016/j.vaccine.2025.128028. Online ahead of print. PMID: 41351929

[Impact of pre-existing anti-replicase immunity on the efficacy of self-amplifying mRNA vaccines.](#)

Cui X, Amelinck L, Gillon O, Catani JPP, Gao Y, Sun Q, De Sutter E, Vervaeke P, Snoeck J, Lienenklaus S, Saelens X, Zhong Z, Sanders NN. *Nat Commun.* 2025 Dec 6. doi: 10.1038/s41467-025-66993-1. Online ahead of print. PMID: 41353442

[Beyond income: The overlooked role of institutional trust and digital access in vaccine equity.](#)

Nurjaman I. *Health Policy.* 2025 Dec 2;164:105509. doi: 10.1016/j.healthpol.2025.105509. Online ahead of print. PMID: 41353914

[Correction: MPOX outbreak in Africa: the urgent need for local manufacturing of the vaccine and decolonized health systems.](#)

Cynthia AN, Nchanji GT. *BMC Public Health.* 2025 Dec 9;25(1):4235. doi: 10.1186/s12889-025-25762-x. PMID: 41366359

[SARS-CoV-2 testing behavior in symptomatic adults in a U.S. national cohort, 2020-2023: influence of exposure risk, susceptibility and healthcare access.](#)

Sanborn J, Qasmieh S, Penrose K, Parcesepe A, Shen Y, Piltch-Loeb R, Nuñez J, Nash D, Robertson M. *BMC Public Health.* 2025 Dec 8. doi: 10.1186/s12889-025-25516-9. Online ahead of print. PMID: 41354779

[Gitonin, a spirostanol glycoside, acts as a mucosal adjuvant to enhance antigen-specific mucosal and systemic immune responses in mice.](#)

Tada R, Matsuo Y, Nomura E, Tanaka M, Koenuma T, Honda Y, Mimaki Y, Kunisawa J, Adachi Y, Negishi Y. *Vaccine.* 2025 Dec 4;71:128053. doi: 10.1016/j.vaccine.2025.128053. Online ahead of print. PMID: 41349443

[A modular platform to display multiple hemagglutinin subtypes on a single immunogen.](#)

Thornlow Lamson D, Nait Mohamed FA, Vu M, Maurer DP, Ronsard L, Lingwood D, Schmidt AG. *Elife.* 2025 Dec 8;13:RP97364. doi: 10.7554/eLife.97364. PMID: 41359709

[Measurement of COVID-19 vaccination acceptance and associated factors among Afghan refugees in Iran: insights from a cross-sectional study.](#)

Askarian M, Taherifard E, Taherifard E, Shayan Z, Longtin Y, Groot G, Ranjbar E, Askarian A, Taghrir MH, Hatam N. *BMC Public Health.* 2025 Dec 7. doi: 10.1186/s12889-025-25891-3. Online ahead of print. PMID: 41353117

[Faith Community Nurse Public Health Collaboration to Combat Vaccine Hesitancy.](#)

[No authors listed] *J Christ Nurs.* 2026 Jan-Mar 01;43(1):E6. doi: 10.1097/CNJ.0000000000001357. Epub 2025 Dec 8. PMID: 41359476

[The leap of faith in science hypothesis: The link between secular belief and confidence in scientific consensus is better explained by faith in science than by knowledge.](#)

Hudiyana J, Patricia A, Hanaveriesa N, Siregar ALT, Putra IE. Public Underst Sci. 2025 Dec 8;9636625251396368. doi: 10.1177/09636625251396368. Online ahead of print. PMID: 41358501

[PLGA nanoparticles for oral delivery of prion-specific antigen: a novel approach to chronic wasting disease vaccination.](#)

Elsutohy MM, Abdelaziz D, Dalton CS, Kruger B, Phan S, Cheng YC, Low K, Ahmed-Hassan H, Schätzl HM. Sci Rep. 2025 Dec 7. doi: 10.1038/s41598-025-31381-8. Online ahead of print. PMID: 41354853

[Erratum to "Innate immune mechanisms underlying the efficacy of a next-generation nanoparticle-based vaccine against opioid use disorders" \[Journal of Controlled Release 388 \(2025\) 114294\].](#)

Hamid FA, Rostamizadeh K, Skiados N, Le NN, Walter DL, Hannon B, Marecki C, Bian Y, Luengas D, Zhang C, Pravetoni M. J Control Release. 2025 Dec 5;389:114381. doi: 10.1016/j.jconrel.2025.114381. Online ahead of print. PMID: 41352165

[Whole-genome analysis of influenza A\(H1N1\)pdm09 viruses in Cameroon \(2019-2024\) using nanopore sequencing.](#)

Tsafack DT, Monamele CG, Koro Koro F, Essengue LLM, Mouchili-Njifon A, Ezzo L, Njankouo Ripa M, Touoyem PI, Mouliem JLM, Tamoufe U, Moubeket-Yifomnjou MH, Njouom R. BMC Infect Dis. 2025 Dec 9. doi: 10.1186/s12879-025-12284-5. Online ahead of print. PMID: 41366305

[Vaccine hesitancy: Chris Whitty says non-judgmental patient conversations needed to counter disinformation in UK.](#)

Mahase E. BMJ. 2025 Dec 5;391:r2569. doi: 10.1136/bmj.r2569. PMID: 41360429

[Two-year prognosis of mRNA vaccine-related myocarditis compared with historical conventional myocarditis: a population-based cohort study.](#)

Song S, Cheong Hui DS, Shan Wong SY, Lau CS, Ngai Hung IF, Tsun Lai FT. Clin Microbiol Infect. 2025 Dec 2;S1198-743X(25)00603-2. doi: 10.1016/j.cmi.2025.11.031. Online ahead of print. PMID: 41344573

[Humoral and functional SARS-CoV-2-specific T-cell responses elicited in chronic lymphocytic leukaemia patients with GEO-CM04S1 a synthetic MVA-vectored COVID-19 vaccine.](#)

Ortega-Francisco S, Prudente de Aquino MT, La Rosa C, Chiuppesi F, Gutierrez MA, Miller J, Li J, Mack-Onyeike J, Zhou Y, Zhou Q, Kaltcheva T, Patterson A, Dempsey S, Thomas S, Tiemann K, Yang D, Rida W, Wussow F, McKee K, Taplitz R, Raiden E, Siddiqi T, Rosen S, Diamond DJ, Danilov A. Br J Haematol. 2025 Dec 8. doi: 10.1111/bjh.70268. Online ahead of print. PMID: 41360730

[Hepatitis B vaccine guidance set to be rolled back for US babies: what the science says.](#)

Lenharo M, Ledford H. Nature. 2025 Dec 5. doi: 10.1038/d41586-025-03937-1. Online ahead of print. PMID: 41350766

[Public health lessons in equity for the United Kingdom's gonorrhoea vaccine launch.](#)

Haywood J, Weil B, Nutland W, McSorley J. *BMJ*. 2025 Dec 9;391:e086660. doi: 10.1136/bmj-2025-086660.PMID: 41365600

Patentes registradas en Patentscope

Estrategia de búsqueda: (Vaccine) AND DP:([02.12.2025 TO 10.12.2025]) as the publication date 15 records.

1. [WO/2025/246024](#) MYCOPLASMA HYOPNEUMONIAE SUBUNIT VACCINE, PREPARATION METHOD THEREFOR, AND USE THEREOF

WO - 04.12.2025

Clasificación Internacional [A61K 39/02N](#)° de solicitud PCT/CN2024/109821 Solicitante JIANGSU ACADEMY OF AGRICULTURAL SCIENCES Inventor/a YU, Yanfei

Provided are a *Mycoplasma hyopneumoniae* subunit vaccine, a preparation method therefor, and use thereof, which belong to the field of animal vaccines. The *Mycoplasma hyopneumoniae* subunit vaccine uses a *Mycoplasma hyopneumoniae* fusion protein as an antigen, the amino acid sequence of which is set forth in SEQ ID NO: 1. The preparation method comprises the following steps: (1) preparing an aqueous phase containing the fusion protein; and (2) mixing an oil phase and the aqueous phase according to a volume ratio of 1:0.8-1.2, and emulsifying to obtain the vaccine. The *Mycoplasma hyopneumoniae* subunit vaccine can protect pigs effectively for a long time and provides an effective means for the prevention and control of *Mycoplasma hyopneumoniae*.

2. [WO/2025/250534](#) T CELL TARGETS FOR TUBERCULOSIS VACCINES

WO - 04.12.2025

Clasificación Internacional [A61K 39/04N](#)° de solicitud PCT/US2025/031027 Solicitante THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY Inventor/a DAVIS, Mark M.

The Mtb protein Rv2140c, specific peptide epitopes derived, and polynucleotide sequences encoding such polypeptides are disclosed herein as a useful TB antigen for generating a protective immune response to development of tuberculosis. In some embodiments the Rv2140c polypeptide or polynucleotide is formulated as a vaccine. In some embodiments the Rv2140c vaccine is administered to a naive recipient. In some embodiments the Rv2140c vaccine is administered as a booster to a previously vaccinated to exposed individual. In some embodiments the previous vaccination is a BCG vaccination.

3. [WO/2025/248488](#) COMPOSITIONS AND METHODS FOR PREVENTING AND TREATING HEALTHCARE-ASSOCIATED CANDIDA AURIS INFECTIONS WITH DUAL ANTIGEN VACCINE

WO - 04.12.2025

Clasificación Internacional [A61K 39/00N](#)° de solicitud PCT/IB2025/055573 Solicitante LUNDQUIST INSTITUTE FOR BIOMEDICAL INNOVATION AT HARBOR-UCLA MEDICAL CENTER Inventor/a IBRAHIM, Ashraf S.

Presented herein, in certain embodiments, are compositions and methods for preventing and/or treating multi-

drug-resistant fungal infections such as *Candida auris* infectious via using a dual antigen vaccine composition of A1s3p and Hyr1p antigens. The vaccine compositions are useful in preventing and/or treating a fungal infection, such as *Candida albicans*, *Candida auris*, or Gram-negative bacterial infections, and/or a fungal-bacterial mixed infection. These infections can be mucosal or invasive infections.

4. [WO/2025/250851](#) TRIVALENT PAN-SARBECOVIRUS MUCOSAL VACCINE CONSTRUCTS AND METHODS OF MAKING AND USING SAME

WO - 04.12.2025

Clasificación Internacional [A61K 39/215](#)Nº de solicitud PCT/US2025/031522 Solicitante WASHINGTON UNIVERSITY Inventor/a DIAMOND, Michael

Among the various aspects of the present disclosure is the provision of a coronavirus vaccine and methods of making and using the same. The vaccine composition includes a nucleic acid encoding at least a portion of the genome of an adenovirus; and at least a portion of at least one phylogenetically inferred receptor binding domain (RBD) sequence from a Sarbecovirus clade or an immunogenic portion, variant, mutant, or fragment thereof.

5. [WO/2025/246436](#) CIRCULAR RNA-BASED THERAPEUTIC VACCINE FOR TREATING HPV POSITIVE CANCER

WO - 04.12.2025

Clasificación Internacional [A61K 39/12](#)Nº de solicitud PCT/CN2025/076310 Solicitante THERORNA INC. Inventor/a GAO, Lu

Provided are a method of using a circular RNA as vaccine to treat HPV-positive cancer and a design strategy to elicit specific and robust T cell response by promoting antigen presentation.

6. [WO/2025/247235](#) METHODS OF INDUCING TUMOR SPECIFIC T CELLS WITH A CIRCULAR RNA CANCER VACCINE

WO - 04.12.2025

Clasificación Internacional [C12N 15/113](#)Nº de solicitud PCT/CN2025/097557 Solicitante THERORNA SHANGHAI CO., LTD. Inventor/a GAO, Lu

Provided is a method of using circular RNA as vaccine to treat cancer and design strategy to elicit specific and robust T cell response by promoting antigen presentation.

7. [WO/2025/250658](#) CORONAVIRUS VACCINE COMPOSITIONS

WO - 04.12.2025

Clasificación Internacional [C07K 14/165](#)Nº de solicitud PCT/US2025/031222 Solicitante THE REGENTS OF THE UNIVERSITY OF CALIFORNIA Inventor/a ESTRIN, William

Described herein are compositions, e.g., vaccine compositions, comprising core envelope peptides and method of using such compositions in immunization and stimulation of immune responses.

8. [WO/2025/247278](#) CIRCULAR RNA-BASED THERAPEUTIC **VACCINE** FOR TREATING SOLID TUMOR

WO - 04.12.2025

Clasificación Internacional [C12N 15/113](#)N° de solicitud PCT/CN2025/097795 Solicitante THERORNA SHANGHAI CO., LTD. Inventor/a GAO, Lu

Provided are a method and a composition utilizing circular RNA as a **vaccine** for cancer treatment, and with a design specifically targeting the MHC presentation pathway.

9. [WO/2025/248815](#) ANTIBODY OR FRAGMENT THEREOF, AND ANTI-INFLUENZA **VACCINE**

WO - 04.12.2025

Clasificación Internacional [C07K 16/42](#)N° de solicitud PCT/JP2024/041997 Solicitante CHIOME BIOSCIENCE INC. Inventor/a ITO Hiroshi

The present invention addresses the problem of providing an anti-idiotypic antibody against a broadly neutralizing antibody and an antigen that is produced using the anti-idiotypic antibody and can induce reactivity to a wide range of subtypes of influenza viruses. The present invention provides an antibody or a fragment thereof which specifically binds to a "MEDI8852 antibody" or a "FluA-20 antibody" that is a specific anti-influenza HA broadly neutralizing antibody.

10. [WO/2025/247025](#) ANTI-STRESS COMPOSITION AND USE THEREOF

WO - 04.12.2025

Clasificación Internacional [A61K 31/11](#)N° de solicitud PCT/CN2025/096059 Solicitante NINGBO SANSHENG BIOLOGICAL TECHNOLOGY CO., LTD Inventor/a ZHENG, Xingchang

An anti-stress composition, comprising 2-methyl-2-butenal as an active ingredient. Dosage forms of the composition include an ointment, a pour-on agent, and a spray. The composition is used for combating stress in ruminants, poultry, and equine animals. The stress includes weaning stress, transport stress, **vaccine** injection stress, heat stress, group mixing stress, fighting stress, noise stress, and oxidative stress.

11. [WO/2025/247259](#) NOVEL PROTEIN MULTIMERIZATION TAG AND USE THEREOF

WO - 04.12.2025

Clasificación Internacional [C12N 15/86](#)N° de solicitud PCT/CN2025/097719 Solicitante XIAMEN UNIVERSITY Inventor/a YUAN, Quan

A truncated $\sigma 1$ protein or a variant thereof, a fusion protein and trimeric protein containing the truncated $\sigma 1$ protein or the variant thereof, and a nucleic acid molecule and vector containing a nucleotide sequence encoding the truncated $\sigma 1$ protein. The present invention further relates to a **vaccine**, kit and pharmaceutical composition containing the truncated $\sigma 1$ protein or the variant thereof, the trimeric protein, the nucleic acid molecule or the vector.

12. [WO/2025/248564](#) A NOVEL VIRUS-LIKE PARTICLE PLATFORM BASED ON INTEIN-MEDIATED BIOCONJUGATION WITH TARGET ANTIGEN AND ENCAPSULATED WITH IMMUNOMODULATORY

FACTORS

WO - 04.12.2025

Clasificación Internacional A61K 35/765Nº de solicitud PCT/IN2025/050817Solicitante PROTEXTENT BIOSOLUTIONS PRIVATE LIMITEDInventor/a SINGH, Subhash

The present invention deals with a novel virus-like particle (VLP) platform for developing enhanced vaccines. This novel VLP-platform consists of two unique attributes: i) intein-mediated protein bioconjugation, a method that allows for precise and efficient attachment of target antigens to the VLP surface without leaving undesirable residual tags or scars; and ii) encapsulation of different small molecule immunomodulators (including cytokines, adjuvants, and small molecule metabolites) for specific priming of tailored immune response through influencing the outcome of interactions between the antigen-presenting cells (APCs) and the T-cells towards eliciting a specific type of immune response (Th1: humoral, Th1: cell mediated, Tfh, Th2, Th17, or Treg). This intein-mediated bioconjugation based VLP platform facilitates a "plug-and-display" approach, significantly reducing the time and resources required for development of vaccines suitable for a wide range of applications, including vaccines against infectious diseases, cancer immunotherapies, and treatments for autoimmune disorders. Additionally, encapsulation of immunomodulatory factors within the VLP core, enables delivery to APCs thereby generating robust and specific type of immune response for enhanced **vaccine** efficacy. This invention provides a versatile, scalable, and cost-effective solution for rapid development of vaccines that induce comprehensive and tailored immune responses, including both humoral and cellular immunity with long-term memory.

13. WO/2025/247708 IMMUNOMODULATORY THIOUREA AND UREA CARBOHYDRATE COMPOUNDS AND USES THEREOF

WO - 04.12.2025

Clasificación Internacional C07H 15/12Nº de solicitud PCT/EP2025/063858Solicitante CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICASInventor/a GARCÍA FERNÁNDEZ, José Manuel

The present invention relates to new immunomodulatory thiourea and urea carbohydrate compounds of formula (I), pharmaceutical compositions comprising them and the use thereof, mainly as **vaccine** adjuvants, in the modulation of immune response in a subject, in the treatment and/or prophylaxis of infectious diseases and in the treatment of cancer.

14. WO/2025/250843 SELF-ASSEMBLING ESCRT RECRUITING DOMAINS (ERD) AND METHODS OF USE THEREOF

WO - 04.12.2025

Clasificación Internacional C07K 14/005Nº de solicitud PCT/US2025/031513Solicitante **VACCINE** COMPANY, INC.Inventor/a WEIDENBACHER, Payton Anders-Benner

Disclosed herein are polynucleotides that encode fusion proteins, wherein the fusion proteins comprise an antigenic polypeptide and one or more non-human endosomal sorting complex required for transport-recruiting domains (ERDs). Also provided herein are related compositions, methods of making, and methods

of using. In particular, these fusion proteins are useful to produce enveloped virus-like particles (eVLPs) for use in the prevention and treatment of diseases or disorders.

15.WO/2025/250938 RESPIRATORY SYNCYTIAL VIRUS AND METAPNEUMOVIRUS VACCINES

WO - 04.12.2025

Clasificación Internacional A61K 39/12N° de solicitud PCT/US2025/031655 Solicitante MODERNATX, INC. Inventor/a JORQUERA, Patricia

Provided herein are **vaccine** composition comprising a chemically-modified messenger ribonucleic acid (mRNA) encoding a hMPV fusion (F) glycoprotein and/or a chemically-modified mRNA encoding a hRSV F glycoprotein formulated in a lipid nanoparticle, and related methods for inducing an antigen-specific immune response.

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

Estrategia de búsqueda: *vaccine.ti. AND @PD>="20251202"<=20251210 17 records*

Document ID	Title	Inventor	Applicant Name
US 12491241 B2	Coronavirus vaccine formulations	Smith; Gale et al.	Novavax, Inc.
US 12491240 B2	Method for producing influenza HA split vaccine	Takahashi; Yoshimasa et al.	JAPAN as represented by DIRECTOR GENERAL of National Institute of Infectious Diseases, Sumitomo Pharma Co., Ltd.
US 12491238 B2	Vaccine	Mcfadden; Johnjoe et al.	University of Surrey, The Secretary of State for Environment, Food and Rural Affairs Acting Through Animal and Plant Health Agency
US 12491237 B2	Vaccine compositions and methods for the treatment and prevention of urinary tract infections	Abraham; Soman et al.	Duke University

US 12491161 B2	Single vial vaccine formulations	Fox; Christopher B. et al.	ACCESS TO ADVANCED HEALTH INSTITUTE
US 20250367278 A1	VARIANT STRAIN-BASED CORONAVIRUS VACCINES	Carfi; Andrea et al.	ModernaTX, Inc.
US 20250367283 A1	MEVALONATE PATHWAY INHIBITOR AS HIGHLY-EFFICIENT VACCINE ADJUVANT	Zhang; Yonghui	Tsinghua University
US 20250367277 A1	STREPTOCOCCAL VACCINES AND METHODS FOR USE	David; Shannon Christa et al.	GPN Vaccines Ltd
US 20250367280 A1	ALLERGY VACCINES BASED ON CONSENSUS ALLERGENS	Rivera de Torre; Esperanza et al.	Danmarks Tekniske Universitet
US 20250367275 A1	METHODS OF TREATING PANCREATIC CANCER WITH A PD-1 AXIS BINDING ANTAGONIST AND AN RNA VACCINE	MANCUSO; Michael Robert et al.	Genentech, Inc., BioNTech SE
US 12485164 B2	Meningococcus vaccines	Biolchi; Alessia et al.	GLAXOSMITHKLINE BIOLOGICALS SA
US 12487241 B2	Rapid verification of virus particle production for a personalized vaccine	Rice; Adrian E. et al.	NANTCELL, INC., NANTBIO, INC.
US 12486306 B2	Carrier protein subjected to site-directed mutation and use thereof in preparation of vaccine	Wang; Haomeng et al.	CANSINO BIOLOGICS INC.
US 12485168 B2	Hepatitis B virus vaccines	Bruening; Eric et al.	Vir Biotechnology, Inc., Triad National Security, LLC

US 12488859 B2	Peptide based vaccine generation system with dual projection generative adversarial networks	Min; Renqiang et al.	NEC Laboratories America, Inc.
US 12485165 B2	Vaccine combination and method for using the same	Chang; Yung-Nien	Papivax Biotech Inc.
US 12485166 B2	Vaccines for the treatment and prevention of zoonotic infections	Daum; Luke T. et al.	Longhorn Vaccines and Diagnostics, LLC

NOTA ACLARATORIA: Las noticias y otras informaciones que aparecen en este boletín provienen de sitios públicos, debidamente referenciados mediante vínculos a Internet que permiten a los lectores acceder a las versiones electrónicas de sus fuentes originales. Hacemos el mayor esfuerzo por verificar de buena fe la objetividad, precisión y certeza de las opiniones, apreciaciones, proyecciones y comentarios que aparecen en sus contenidos, pero este boletín no puede garantizarlos de forma absoluta, ni se hace responsable de los errores u omisiones que pudieran contener. En este sentido, sugerimos a los lectores cautela y los alertamos de que asumen la total responsabilidad en el manejo de dichas informaciones; así como de cualquier daño o perjuicio en que incurran como resultado del uso de estas, tales como la toma de decisiones científicas, comerciales, financieras o de otro tipo.

Edición: Annia Ramos Rodríguez aramos@finlay.edu.cu

Randelys Molina Castro rmolina@finlay.edu.cu

Claudia Camejo Salas ccamejo@finlay.edu.cu

Yamira Puig Fernández yamipuig@finlay.edu.cu

