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

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

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Next-generation COVID-19 vaccines currently being tested

Apr 11. As the COVID-19 pandemic ended almost two years ago, companies continue to research vaccines with new ideas and concepts. This is because COVID-19 cases continue, and as the actual virus evolves, treatment and prevention must also do the same. Three companies recently announced progression in their clinical research for next-generation COVID-19 vaccines: INOVIO, Ocugen, and Pfizer.

INOVIO Pharmaceuticals, a biotechnology company that focuses on developing DNA immunotherapies and vaccines for the treatment and prevention of various cancers and infectious diseases, announced on March 13 that the company received promising results from its ongoing Phase I trial evaluating DMAbs. Results showed that 100% of subjects (24 out of 24) maintained relevant levels of DMAbs, with no subjects developing anti-drug antibodies and no serious adverse events. The most common side effects seen were injection-site reaction, as well as pain and erythema. The Phase I trial uses synthetic DNA technology to enable in vivo production of monoclonal antibodies directly from muscle cells.

Secondly, Ocugen with Washington University in St Louis looks to start a Phase I clinical trial in the US with its nasal vaccine, OCU500. The vaccine received FDA investigational new drug application approval in 2022. The trial, which will be sponsored by The National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, will look to enrol 80 adult subjects between the ages of 18 and 64 years with four different subgroups: low-dose, high-dose, inhalation group, and intranasal group. The trial is anticipated to start sometime in Q2 2025.

Pfizer initiated a Phase II trial in early March 2025 for its next-generation antiviral drug candidate, ibuzatrelvir. The trial, 'An Interventional Efficacy and Safety, Phase III, Double-Blind, 2-Arm Study to Investigate Orally Administered Ibuzatrelvir Compared with Placebo in Non-Hospitalized Symptomatic Adult and Adolescent Participants with COVID-19 Who Are at High Risk of Progressing to Severe Illness', will look to enrol 2,330 patients.

"Next-generation COVID-19 vaccines currently being tested" was originally created and published by Clinical Trials Arena, a GlobalData owned brand.

Fuente: Global Data. Disponible en https://n9.cl/xjmne

Favorece nuevo convenio impacto de la ciencia en la salud

11 abr. Con la firma hoy de un nuevo convenio de colaboración entre la Universidad de Oriente y el Instituto Finlay de Vacunas (IFV), científicos cubanos ratifican el compromiso con la salud y bienestar del pueblo.

El acuerdo, rubricado en el marco de la IV Convención Internacional Ciencia y Conciencia, procura proyectar soluciones de impacto directo en el sistema de Salud Pública y garantizar la superación de científicos dispuestos al servicio de la vida.

En declaraciones a la prensa, Vicente Verez, director general del centro de investigaciones, significó la oportunidad de afianzar los lazos establecidos con Santiago de Cuba hace 10 años, con la inclusión de la

provincia en una red centinela, así como extender la cooperación hasta el ámbito académico.

La casa de altos estudios oriental cuenta con una rica y fortalecida tradición en la formación de especialistas en Química, de ahí el orgullo de regresar a Santiago de Cuba para contribuir, desde la teoría y la producción científica, al cuidado de la salud de infantes y adultos, afirmó.

De acuerdo con Verez, el equipo cuenta con un convenio de colaboración con la Dirección General de Salud del territorio, con el propósito de extender los ensayos clínicos de nuevas vacunas hacia la población pediátrica de esta región.

Con el convenio las instituciones prevén fomentar la formación de profesionales, la investigación innovadora y la transferencia tecnológica, siempre con miras al desarrollo sostenible y el bienestar social.

Fundado en 1991, el IFV deviene referente global en biotecnología, por su protagonismo en la creación de inmúnogenos contra los serotipos de meningitis, así como las vacunas Soberana 01, Soberana 02 y Soberana Plus, contra la COVID-19.

Fuente: Agencia Cubana de Noticias. Disponible en https://n9.cl/5l5sgr

To eradicate polio once and for all, we need a new vaccine – that's what we're working on

Apr 12. All vaccines work by training our immune systems to recognise a harmless piece of a virus or bacteria so that when the real thing is encountered later, the immune system is prepared to defeat it.

There are two types of polio vaccine in use. One is the inactivated poliovirus vaccine (IPV), and the other the live-attenuated oral poliovirus vaccine (OPV).

The IPV is made by "killing" large quantities of poliovirus with a chemical called formalin, making it unable to replicate.

The immune system is then "trained" to recognise the poliovirus – which is thankfully rendered safe by formalin.

The OPV vaccine contains a weakened (or "attenuated") version of the virus. These changes in the virus's genetic code stop it from causing disease. However, as the OPV vaccine is still capable of replicating, it can revert to a form that can cause disease, with the potential to cause paralysis in unvaccinated people.

Because of these risks, scientists are now looking for safer ways to create vaccines – methods that don't require growing large amounts of the live virus in high-security labs, as is done for IPV.

Our research team has taken an important step towards producing a safer and more affordable polio vaccine. This new vaccine candidate uses virus-like particles (VLPs). These particles mimic the outer protein shell of poliovirus, but are empty inside. This means there is no risk of infection, but the VLP is still recognised by the immune system, which then protects against the disease.

This vaccine candidate uses technology that's already being used in hepatitis B and human papillomavirus (HPV) vaccines. Thanks to VLPs, since 2008, there have been no cervical cancer cases in women in Scotland who were fully vaccinated against HPV.

Over the past ten years, our research group has worked to apply this successful technology in the fight to eradicate polio.

Vaccine success

Throughout the 19th and 20th centuries, polio was a major global childhood health concern. However, the development of IPV (licensed in 1955) and of OPV (licensed in 1963), almost eliminated polio-derived paralysis. Due to the success of the Global Polio Eradication Initiative , introduced in 1988, most cases of paralytic polio are now caused by the vaccine.

Despite the success of these vaccines, they both have safety concerns that could threaten to compromise eradication of the disease.

IPV, for instance, is expensive to make because it needs stringent safety measures to prevent the accidental release of live poliovirus and so is mostly used in wealthy countries. OPV is five times cheaper than IPV, and due to its lower cost and ease of use, it is used almost exclusively in developing countries.

OPV has been instrumental in the near eradication of “wild polioviruses” (the naturally occurring form) around the world. But in areas where vaccination rates are low and enough people are susceptible to infection, the weakened virus (OPV) can replicate.

Unfortunately, each round of replication increases the potential for the virus to revert to a form of polio that causes illness and paralysis. This is already evident in new vaccine-derived outbreaks across several countries in Africa, Asia and the Middle East, which now accounts for most paralytic polio cases worldwide . So, once all remaining strains of wild poliovirus have been successfully eradicated, OPV use will have to stop.

Safer vaccine

The next generation of polio vaccinations is likely to be produced in yeast or insect cells. Our research shows that VLPs produced in both yeast and insect cells can perform equally or better than the current IPV.

These non-infectious VLPs are also easier to produce than IPVs. They would not need to be handled under such stringent laboratory conditions as IPVs, and they are more temperature stable, thanks to genetic alteration of the outer shell. The new vaccines, then, will be less expensive to produce than IPVs, helping to improve fair and equal access to vaccination – ensuring that once polio is eradicated, it will stay eradicated.

As we move closer to wiping out polio worldwide, these next-generation vaccines could be the final tool we need – safe, affordable and accessible to all.

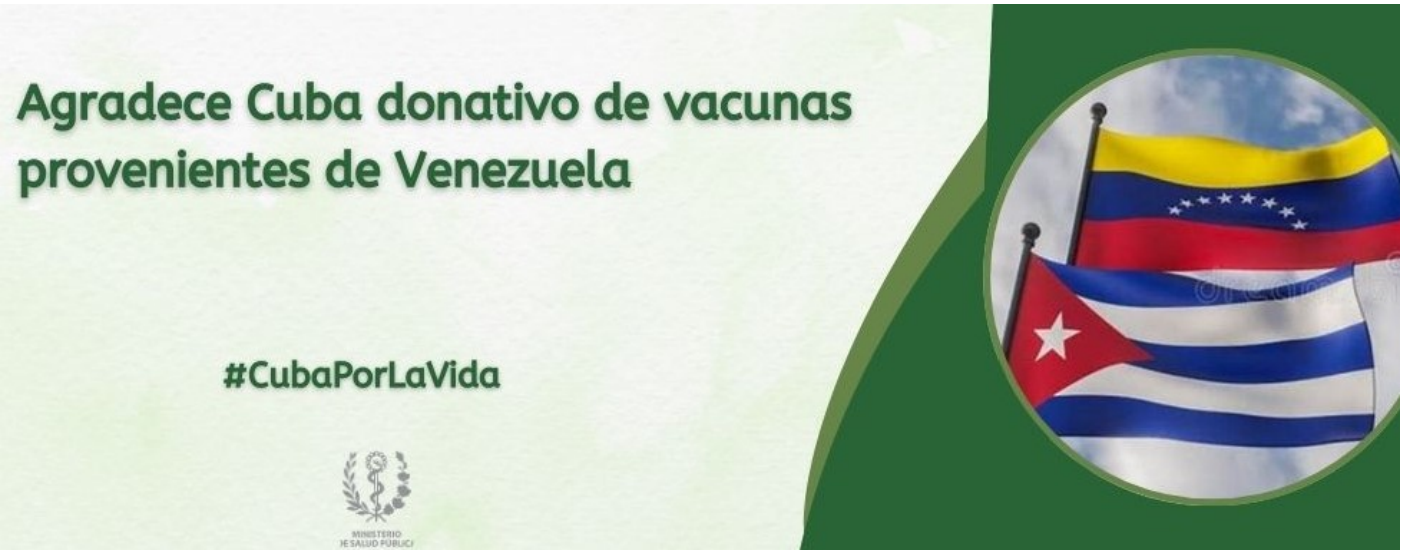
Fuente: The Conversation. Disponible en https://n9.cl/yxxt5

Agradece Cuba donativo de vacunas provenientes de Venezuela

12 abr. El Ministerio de Salud Pública de Cuba (Minsap) agradece al Gobierno de la República Bolivariana de Venezuela el donativo de 90 mil dosis de vacuna duple bacteriana; que protege contra la difteria y el tétanos (ambas enfermedades eliminadas en la Mayor de las Antillas).

Esta vacuna forma parte del esquema establecido en el Programa Nacional de Inmunización y es administrada a los niños que cursan el primer grado de escolaridad en todo el país.

Con acciones como estas, la solidaridad entre nuestros pueblos se fortalece cada día más, ante la hostilidad del imperialismo y el cruel bloqueo que nos impone el gobierno de los Estados Unidos.
La alianza entre Cuba y Venezuela ha sido un ejemplo destacado de cooperación internacional, basada en principios de solidaridad, hermandad y complementariedad.



Fuente: Ministerio de Salud Pública. Disponible en https://n9.cl/8up0le

Scientific Conference by GlaxoSmithKline on the Launch of "Bexsero," Egypt's First Vaccine for the Prevention of Meningococcal Bacterial Meningitis (Group B)

Apr 13. GlaxoSmithKline recently held a high-level scientific conference in conjunction with the launch of "Bexsero," the first vaccine in Egypt approved by the Egyptian Drug Authority for the prevention of meningococcal disease, commonly known as bacterial meningitis, caused by Neisseria meningitidis Group B.

This potentially life-threatening disease can lead to severe long-term complications and may be fatal within 24 hours. According to global statistics, one in five infected individuals suffers from serious complications, and one in ten dies from the disease.

Held in Egypt's New Administrative Capital, the conference featured advanced scientific discussions on the various types of meningitis, its progression, and the latest prevention methods. It also marked the official introduction of "Bexsero" to the Egyptian market, in the presence of top pediatric healthcare experts from across the country, as well as leading international specialists in pediatrics and healthcare.

The conference included comprehensive scientific and educational dialogues about the different meningococcal serogroups, their prevalence, and potential presence in Egypt. It also presented data and statistics on the global and regional (North Africa and Egypt) epidemiology of meningitis caused by Group B. The aim was to enhance understanding of the epidemiology and clinical implications of the disease, particularly the strain caused by Neisseria meningitidis Group B.

Experts emphasized the importance of immunizing infants, especially in the months following their second month of life, when infection rates are globally at their highest.

Discussions also addressed the latest vaccine development technologies, particularly the innovative technology used in creating Bexsero. This advancement enabled the development of a groundbreaking vaccine against the highly dangerous and complication-prone Group B strain of meningococcal bacteria.

Experts praised the efforts of the Egyptian government and the health sector in curbing the spread of meningitis by providing vaccines against different meningococcal strains—both through the free immunization of schoolchildren and other vaccines available in the Egyptian market.

The launch of Bexsero in Egypt complements these national efforts to combat meningitis and reflects the dedication of all relevant parties in Egypt—including the Egyptian Drug Authority, the Ministry of Health and Population, and GlaxoSmithKline as a leading healthcare company—to safeguarding the health of Egyptian citizens and ensuring their access to the latest vaccines and innovative treatments.

Among the prominent international participants was Professor Mohamed-Kheir Taha, a distinguished researcher at the Institut Pasteur in France and Head of the Meningococcal Infections Unit. He noted that the development of an effective vaccine against Group B bacteria was a major scientific challenge that took years to overcome. Thanks to cutting-edge technology, Bexsero was created and now stands as Egypt's first vaccine against Group B meningococcal infections. Professor Taha has authored over 238 scientific publications and made significant contributions to the global understanding of bacterial infections and public health. He also wrote a scientific review on the epidemiology of meningitis and vaccination strategies in North Africa, including Egypt.

Also in attendance was Professor José Tomás Ramos Amador, Head of the Pediatrics Department at Complutense University of Madrid and at one of the largest hospitals in Madrid. As an investigator in multiple clinical trials—including those involving Bexsero—he stated that the introduction of this vaccine in Egypt is a vital step in offering effective preventative solutions against Group B meningitis. He emphasized that Group B meningococcal infections account for approximately 16% of bacterial meningitis cases in Egypt, with about half of those attributed specifically to Group B, according to studies. He commended the advanced technology behind Bexsero's development.

Dr. Ahmed El-Belidi, Professor of Pediatrics at Cairo University, highlighted the severe threat posed by meningitis in children, which can escalate rapidly and cause death within 24 hours. Global statistics show that one in ten patients dies, and one in five suffers severe complications. He pointed out the most common permanent disabilities caused by the disease, including hearing loss, motor disorders, epilepsy, and even limb loss. Due to the difficulty in diagnosing the disease in its early stages—since its symptoms mimic those of other illnesses—preventative vaccination becomes critically important. He stressed that infection rates are especially high in infants under one year of age, followed by those aged one to four.

Dr. Gamal Sami, Professor of Pediatrics at Ain Shams University, discussed the dangers of meningitis (meningococcal disease), which results from inflammation of the protective membranes surrounding the brain and spinal cord—known as the meninges. This inflammation is often caused by bacterial or viral infections and, in some cases, fungal or parasitic infections. Early diagnosis and treatment are essential to preventing serious complications. If left untreated, meningitis can cause irreversible brain or nerve damage, blood poisoning, and even death. Dr. Sami described the symptoms of bacterial meningitis in infants, including unusual irritability, frequent vomiting, refusal to feed, high-pitched crying, blank stares, seizures, and high fever. In older children, symptoms include headaches, neck pain, nausea, sensitivity to light, projectile

vomiting, and high fever. He explained that Bexsero is indicated for individuals from two months to 50 years of age and is the first vaccine in Egypt targeting Group B bacteria. He emphasized the need to educate mothers on the symptoms of the disease and the importance of preventive vaccination.

Dr. Mahmoud El-Zalabany, Professor of Pediatrics at Alexandria University, Dean of the Medical Sector at the Arab Academy for Science, Technology and Maritime Transport, and former Dean of the Faculty of Medicine at Alexandria University, highlighted the critical role of pediatricians in Egypt in raising community awareness about meningitis. He urged parents to adhere to both mandatory and optional vaccination schedules to protect their children from the devastating consequences of this disease. He reiterated the vital importance of vaccination, noting that early symptoms of meningitis are often non-specific. Key symptoms typically emerge within 12 to 15 hours, including petechial rash, delirium, neck stiffness, and photophobia (light sensitivity). The disease can result in death or permanent disabilities such as limb loss.

In closing, Eng. Hassan Fahmy, General Manager of GlaxoSmithKline Egypt, expressed his pride and joy at the launch of Bexsero in the Egyptian market. He reaffirmed the company's commitment to providing access to cutting-edge vaccines and modern medicines developed using the most advanced global technologies. He stated, "The launch of Bexsero in Egypt marks a pivotal step in protecting future generations from a devastating disease like meningitis. We are proud to be trusted partners and will continue to work hand-in-hand with physicians, experts, and health institutions to ensure a safer and healthier future for Egypt's children."

Fuente: Ahram Online. Disponible en https://n9.cl/z6ioa

How a single HPV vaccine dose can prevent cervical cancer

Apr 14. Subunit vaccines—which use a piece of the virus to generate an immune response—typically need boosters, but HPV vaccines broke the paradigm. PATH's Hope Randall explains how.

In 2022, the World Health Organization (WHO) reviewed a compilation of data—including those collated and synthesized by the Single-Dose HPV Vaccine Evaluation Consortium—leading to a decision to endorse the alternative use of a single-dose HPV vaccination schedule.

While shifting from a multi-dose to a one-dose regimen promised logistical and financial advantages, WHO's central question was whether the quality of the evidence supported this shift. Did the data suggest that one dose of HPV vaccine protects against cervical cancer just as well as a series of doses? Would that protection be long-lasting?

Immune response analysis paired with clinical observation can help answer these questions.

A surprising first

HPV vaccine is a subunit vaccine, which is a class of vaccines that uses a piece of the virus to generate an immune response. Researchers used an HPV protein called L1, an important region for the immune system's interaction with the virus. When the vaccines teach the immune system to recognize L1, we're able to fight the real virus in the future.

Subunit vaccines typically require subsequent inoculations (boosters) to generate an adequate immune response, which is why HPV vaccines were recommended on a three-dose schedule when they first became available in 2006. But the success of HPV vaccines surpassed even the most optimistic projections, and one observation was particularly surprising: young women who, for various reasons, had fewer doses of HPV vaccine—even just one dose—still had a strong immune response and were equally protected from HPV infection.

Protection from just one dose of a subunit vaccine was unprecedented. To understand what set HPV vaccines apart, researchers took a close look at the immune response.

A geometric jackpot

In HPV vaccines, the L1 protein is delivered using a virus-like particle (VLP) mechanism, which retains the protein's original shape. In its native shape, the protein behaves in a specific way: hundreds of these L1 VLPs (360, to be exact) link up to form a kind of super-sphere, with the L1 targets fanning outward around the perimeter, inviting swarms of B cells (a type of immune cell) to bind them through their cell surface antibodies.

This simultaneous response to multiple L1 proteins (as opposed to one or two L1 proteins) results in potent B cell activation signals, and these strong signals stimulate the development of long-lasting plasma cells (LLPCs). LLPCs continuously churn out large numbers of antibodies into the blood for round-the-clock extracellular surveillance duty, humming along as a consistent backdrop of our immune ecosystem.

Critically, LLPCs don't depend on additional vaccine doses or virus exposures to continue production. True to their name, these cells provide long-lasting protection.

Clinical proof

Evidence of this type of immune response has borne out in clinical observation: after an approximately one-year decline following a single dose of HPV vaccine, the antibody level stabilizes at a steady plateau and is sufficient to provide solid long-term protection from infection.

So far, we have data on antibody levels after one dose through up to 16 years post-vaccination. While monitoring will continue, given what we know about this type of immune response, the levels are unlikely to dramatically change in subsequent years, and are expected to maintain protection against the HPV infections that are at highest risk of becoming cervical cancer.

Assessing single-dose performance for new vaccines

While single-dose schedules have been evaluated in widely used HPV vaccines, researchers will assess the performance of new products on a single-dose regimen.

In late 2024, WHO used data from a PATH-sponsored study to add Cecolin® to the list of vaccine product options for use on a single-dose schedule. And in early 2025, PATH initiated participant enrollment in a new study to assess a nine-valent product (designed to protect against nine types of HPV) on a single-dose schedule.

Continued data collection to support the availability of new products will help expand the number of vaccine options for country use and facilitate greater access.

Reaching more girls

Since WHO's endorsement, nearly 70 countries have adopted a single-dose schedule. Additional doses that are repurposed to reach more women and girls will prevent more cases of cervical cancer and save more lives, especially in low- and middle-income countries, where screening and treatment are limited.

The discovery of the potential of single-dose HPV vaccination illustrates not only the fundamental importance of basic science but also of continuous clinical research following product development. Each step of the way, evidence dissemination is paramount.

As additional countries consider their options, the Consortium continues to present evidence to national policymakers and to provide independent, objective evaluation of new evidence on single-dose HPV vaccination as it becomes available.

Fuente: PATH. Disponible en https://n9.cl/o11san

Imported nine-valent HPV vaccine administered to male recipients in China's Hunan

Apr 15. Doses of imported nine-valent human papillomavirus (HPV) vaccine were administered to male recipients in central China's Hunan Province on Tuesday.

The National Medical Products Administration has approved the imported nine-valent HPV vaccine for male recipients aged 16 to 26. Male residents of Changsha, the provincial capital, were among the first to be inoculated upon the approval, according to the provincial center for disease prevention and control.

"This expands comprehensive health protection options for eligible male residents," said Chen Xi, a professor at the center. Previously, only the imported quadrivalent HPV vaccine had been available for men in China.

HPV infection has long been associated with cervical cancer in women, but male health risks are equally significant, said Li Dongjie, a urology professor at Central South University's Xiangya Hospital. "Persistent infection of high-risk HPV strains can lead to anal cancer, oropharyngeal cancer and precancerous lesions in male patients."

"Vaccination serves as a primary prevention measure against HPV-related diseases, protecting both men and their partners," Li added.

The latest vaccine approval comes as China accelerates the opening-up of its medical market, with global pharmaceutical companies actively participating in the country's expanding health care sector.

Fuente: Xinhua. Disponible en https://n9.cl/xk8mej

Vacuna rusa contra el cáncer se prepara para ensayos en humanos en 2025; revelan avances

15 abr. Rusia avanza en su lucha contra el cáncer con el desarrollo de una vacuna que se probará en humanos en 2025. A través de un comunicado oficial en sus redes sociales, la Embajada de Rusia en México reveló detalles clave sobre este prometedor tratamiento.

El Centro Gamaleya, conocido mundialmente por su contribución con la vacuna Sputnik V contra el Covid-19, anunció que las pruebas comenzarán a finales de este año. Esta nueva vacuna utiliza tecnología de ARN mensajero (ARNm), la misma que revolucionó la creación de vacunas contra el coronavirus.

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¿Cómo funciona la vacuna contra el cáncer?

Diseñada para adaptarse a cada paciente, la vacuna busca atacar el cáncer de manera más precisa, reduciendo los efectos secundarios típicos de los tratamientos convencionales. La tecnología ARNm entrena al sistema inmunológico para identificar y destruir células tumorales sin dañar tejidos sanos ni causar inflamación.

En 2024, Alexander Gintsburg, director del Centro Gamaleya, afirmó que la vacuna sería eficaz contra todas

las variantes del cáncer.

¿Cuál será el costo de la vacuna contra el cáncer?

Si el tratamiento resulta exitoso, el gobierno ruso ha indicado que cada dosis costará alrededor de 3 mil dólares, aunque los ciudadanos rusos podrán recibirla de manera gratuita.

Fuente: EL TIEMPO. Disponible en https://n9.cl/ll5gk

WHO Member States conclude negotiations and make significant progress on draft pandemic agreement

Apr 16. After more than three years of intensive negotiations, WHO Member States took a major step forward in efforts to make the world safer from pandemics, by forging a draft agreement for consideration at the upcoming World Health Assembly in May. The proposal aims to strengthen global collaboration on prevention, preparedness and response to future pandemic threats.

In December 2021, at the height of the COVID-19 pandemic, WHO Member States established the Intergovernmental Negotiating Body (INB) to draft and negotiate a convention, agreement or other international instrument, under the WHO Constitution, to strengthen pandemic prevention, preparedness and response.

Following 13 formal rounds of meetings, nine of which were extended, and many informal and intersessional negotiations on various aspects of the draft agreement, the INB today finalized a proposal for the WHO Pandemic Agreement. The outcome of the INB's work will now be presented to the Seventy-eighth World Health Assembly for its consideration.

"The nations of the world made history in Geneva today," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "In reaching consensus on the Pandemic Agreement, not only did they put in place a generational accord to make the world safer, they have also demonstrated that multilateralism is alive and well, and that in our divided world, nations can still work together to find common ground, and a shared response to shared threats. I thank WHO's Member States, and their negotiating teams, for their foresight, commitment and tireless work. We look forward to the World Health Assembly's consideration of the agreement and – we hope – its adoption."

Proposals within the text developed by the INB include establishing a pathogen access and benefit sharing system; taking concrete measures on pandemic prevention, including through a One Health approach; building geographically diverse research and development capacities; facilitating the transfer of technology and related knowledge, skills and expertise for the production of pandemic-related health products; mobilizing a skilled, trained and multidisciplinary national and global health emergency workforce; setting up a coordinating financial mechanism; taking concrete measures to strengthen preparedness, readiness and health system functions and resilience; and establishing a global supply chain and logistics network.

The proposal affirms the sovereignty of countries to address public health matters within their borders, and provides that nothing in the draft agreement shall be interpreted as providing WHO any authority to direct, order, alter or prescribe national laws or policies, or mandate States to take specific actions, such as ban or accept travellers, impose vaccination mandates or therapeutic or diagnostic measures or implement lockdowns.

Dr Tedros paid tribute to the members of the Bureau who guided the INB process: Co-Chairs Ms Precious Matsoso (South Africa) and Ambassador Anne-Claire Amprou (France), and Vice-Chairs Ambassador Tovar da Silva Nunes (Brazil), Ambassador Amr Ramadan (Egypt), Dr Viroj Tangcharoensathien (Thailand); and Ms Fleur Davies (Australia). Past members included former Co-Chair, Mr Roland Driece (the Netherlands), and former Vice-Chairs Ambassador Honsei Kozo (Japan), Mr Kazuho Taguchi (Japan), and Mr Ahmed Soliman (Egypt). The Director-General also acknowledged the constant support provided by WHO Secretariat colleagues.

INB Co-Chair Ms Matsoso said: "I am overjoyed by the coming together of countries, from all regions of the world, around a proposal to increase equity and, thereby, protect future generations from the suffering and losses we suffered during the COVID-19 pandemic. The negotiations, at times, have been difficult and protracted. But this monumental effort has been sustained by the shared understanding that viruses do not respect borders, that no one is safe from pandemics until everyone is safe, and that collective health security is an aspiration we deeply believe in and want to strengthen."

Fellow INB Co-Chair, Ambassador Amprou, said the draft agreement is a major step in strengthening the global health security architecture so people of the world would be better protected from the next pandemic.

"In drafting this historic agreement, the countries of the world have demonstrated their shared commitment to preventing and protecting everyone, everywhere, from future pandemic threats," Ambassador Amprou said. "While the commitment to prevention through the One Health approach is a major step forward in protecting populations, the response will be faster, more effective and more equitable. This is a historic agreement for health security, equity and international solidarity."

The INB was established in December 2021, at a special session of the World Health Assembly, bringing together Member States and relevant stakeholders, including international organizations, private sector, and civil society. At the World Health Assembly in June 2024, governments made concrete commitments to complete negotiations on a global pandemic agreement within a year. The upcoming Assembly starting 19 May 2025 will consider the proposal developed by the INB and take the final decision on whether to adopt the instrument under Article 19 of the WHO Constitution.

Fuente: World Health Organization. Disponible en https://n9.cl/st1k9

Repeated T-Cell Dependent Vaccination Enhances Pneumococcal Immunity in CLL

Apr 17. Serological protection against pneumococcal disease in patients with chronic lymphocytic leukemia (CLL) improved with repeated doses of the 13-valent conjugated pneumococcal vaccine (PCV13), according to results from a study published in Haematologica.

Five years after primary immunization with either PCV13 or the 23-valent polysaccharide vaccine (PPSV23), patients with CLL demonstrated significantly lower protection than healthy controls (10% vs 32%; relative risk [RR] 0.3; 95% CI, 0.1–0.7). Revaccination with PCV13 enhanced the serological response, particularly in those initially immunized with PCV13 (24% vs 12% for PPSV23; RR 2.0; 95% CI, 0.6–6.9). A second PCV13 booster further increased serological response, whereas additional PPSV23 administration provided no additional benefit.

"Twelve months after revaccination, antibody levels declined but remained significantly higher than baseline in patients with CLL."

At baseline, 25% of patients with CLL exhibited hypogammaglobulinemia. Most patients (82%) were treatment -naïve, while a minority had either completed therapy (7%) or were actively receiving Bruton tyrosine kinase inhibitors or anti-CD20 antibodies (9%).

Five years post-vaccination, serological protection (IgG ≥0.35 µg/mL for ≥70% of shared serotypes) did not significantly differ between patients with CLL initially immunized with PCV13 vs PPSV23 (14% vs 5%; RR 2.7; 95% CI, 0.5–13.1). However, patients with CLL had overall markedly lower antibody persistence than controls, with none achieving the higher threshold of serological protection (IgG ≥1.3 µg/mL) compared to 6% of controls.

Following revaccination with PCV13, serological protection increased significantly in all groups, though serological response remained lower in CLL patients compared to controls (18% vs 42%; RR 0.4, 95% CI 0.2 –0.7, p=0.04). A second revaccination with PCV13 in patients initially immunized with PPSV23 significantly improved serological response (from 12% to 30%; p=0.017) and serological protection at the 0.35 µg/mL threshold (from 27% to 49%; p<0.01). In contrast, a second revaccination with PPSV23 did not further augment immunity.

Twelve months after the first revaccination, serological protection persisted at significantly higher levels in patients with CLL compared to baseline (40% vs 71% in controls; P =.002), though antibody concentrations declined. The proportion of patients maintaining serological response decreased significantly in those initially immunized with PPSV23 (from 30% to 13%; P =.021) but not in those who had received PCV13 (from 30% to 20%; P =.14). Despite waning immunity, post-revaccination antibody levels remained above pre-revaccination levels.

Serotype-specific IgG geometric mean concentrations increased significantly after each revaccination in both patients with CLL and controls. However, geometric mean concentrations declined over 12 months following the final booster and were lower in patients with CLL than in controls for most serotypes. These results emphasize the need for improved pneumococcal vaccination strategies in CLL, particularly the administration of repeated doses of a T-cell–dependent vaccine such as PCV13.

“Our findings support repeated doses of T-cell dependent pneumococcal vaccines to improve protection in CLL patients further and underline the need for revision of current pneumococcal vaccination recommendations for this high-risk group,” wrote the authors.

Fuente: Hematology Advisor. Disponible en https://n9.cl/v8dr0

13 million Adults Gaining Access to RSV Vaccines

Apr 17. With over 13 million adults at increased risk in the United States, GSK plc announced that the Advisory Committee on Immunization Practices (ACIP) voted in favor of recommending the use of Respiratory Syncytial Virus (RSV) vaccines, including AREXVY in adults aged 50-59 who are at increased risk for severe RSV disease.

This action expands on ACIP’s previous vote in June 2024 to recommend RSV vaccines for adults aged 60-74.

AREXVY is indicated for the prevention of lower respiratory tract disease (LRTD) caused by RSV in individuals 60 years of age and older, as well as individuals 50 through 59 years of age who are at increased risk for LRTD caused by RSV.

Tony Wood, Chief Scientific Officer, GSK, commented in a press release on April 16, 2025, “RSV can have a significant impact for those with underlying medical conditions. We look forward to helping protect more people with RSV vaccination.”

The ACIP recommendations will be forwarded for review and approval by the U.S. Centers for Disease Control and Prevention. Once approved, the final recommendations will be published to advise healthcare providers on the appropriate use of the vaccine and to inform insurance coverage.

Fuente: VAX BEFORE TRAVEL. Disponible en https://n9.cl/buxes

Afirman vacuna materna protege contra la influenza y COVID-19 a madres y recién nacidos

17 abr. La vacunación materna es considerada una herramienta eficaz para la protección de mujeres embarazadas, sus fetos y recién nacidos de enfermedades infecciosas, como el virus respiratorio sincitial (VRS), la influenza o gripe, la COVID-19 y tosferina o pertusis, entre otras.

De acuerdo con la Organización Panamericana de la Salud (OPS), esta práctica es altamente beneficiosa para estas poblaciones y va de la mano con el enfoque del Día Mundial de la Salud 2025, que busca reducir las muertes prevenibles de madres y sus bebés, asegurando que reciban una atención médica adecuada para su bienestar a largo plazo.

Cifras de la OPS señalan que alrededor de 300 000 mujeres fallecen en su etapa de embarazo o parto y más de dos millones de recién nacidos también mueren durante su primer mes de vida, cada año, en el mundo.

Las enfermedades respiratorias, incluyendo las infecciosas, son la principal causa de mortalidad globalmente, incluyendo los lactantes y niños pequeños. En ese sentido, la neumonía ocupa la primera posición con más de 700 000 muertes de niños menores de cinco años, de las cuales 190 000 son recién nacidos.

“El compromiso con la salud materna y neonatal no puede ser aislado ni temporal. Requiere una acción sostenida, uniendo esfuerzos de la sociedad, de los gobiernos, de las organizaciones y del sector privado para garantizar que todas las mujeres y recién nacidos tengan un comienzo saludable y un futuro esperanzador.

Para esto, resulta importante brindar el acceso adecuado a una atención médica de calidad y a herramientas clave de prevención, como lo son las vacunas, incluyendo para la inmunización materna”, expresó Daniel Bustos, director médico de Pfizer Centroamérica y Caribe.

Asimismo, con respecto a enfermedades infecciosas, los recién nacidos corren un mayor riesgo de contraerlas, ya que su sistema inmunológico no suele ser capaz de generar una respuesta defensiva o inmunitaria contra los diversos microorganismos.

Beneficios de la vacunación materna

La vacunación de mujeres embarazadas es reconocida y recomendada como una estrategia de salud pública y sus beneficios se enmarcan en dos vías primordiales. La primera es proteger a la mujer de infecciones a las que puede ser susceptible, permitiendo, a la vez, defender al feto de enfermedades congénitas u otras consecuencias derivadas de la infección materna.

La segunda es la protección otorgada a los lactantes en desarrollo contra infecciones, durante sus primeros meses de vida y hasta que su sistema inmune esté preparado para responder, adecuadamente, a las vacunas o enfermedades.

"La vacunación materna lleva más de un siglo impactando al mundo; específicamente, desde 1879. Es altamente recomendada en todas las fases del embarazo y, además, es una práctica segura, acotó Marcel Marcano, líder médico de Vacunas de Pfizer Centroamérica y Caribe.

"Desde Pfizer, estamos comprometidos no solo con la investigación y el desarrollo de vacunas que beneficien a diversas poblaciones, en áreas en donde todavía es necesario actuar, sino también, con innovaciones para la atención adecuada en salud, a manera de evitar que más recién nacidos, mujeres embarazadas y otros pacientes sigan enfrentando riesgos prevenibles", explicó.

En esa línea, la campaña de la OPS para el Día Mundial de la Salud 2025 llamada "Comienzos saludables, futuros esperanzadores" resulta fundamental, ya que además de visibilizar la problemática a nivel de salud materna y recién nacidos, busca plantear soluciones orientadas hacia la importancia de contar con sistemas de salud eficientes y con políticas que protejan los derechos de ambas poblaciones.

También, a plantear un enfoque integral de atención que contemple desde la salud mental hasta la planificación familiar

La práctica de la vacunación materna debe ir de la mano de equipos médicos comprometidos con brindar el acompañamiento necesario a la madre, a manera de que esta obtenga la información adecuada del proceso y reciba las vacunas necesarias en cada etapa de su embarazo.

Acuerdo para el acceso asequible a vacunas

En aras de velar por la prevención de enfermedades respiratorias y de garantizar un acceso asequible a la vacuna contra el virus respiratorio sincitial, Pfizer y la OPS establecieron un acuerdo para suministrar esta vacuna a los estados miembros, a través del Fondo Rotativo para el Acceso a las Vacunas de esta entidad.

Fuente: El Nuevo Diario. Disponible en https://n9.cl/imlfm1

Hipra, que prometió la primera vacuna contra la COVID-19, busca combatir el virus del Nilo y la gripe aviar

17 abr. Durante la pandemia, los laboratorios Hipra dieron el salto al campo de la salud humana con el desarrollo de la primera vacuna española contra la COVID-19. Desde entonces, se han consolidado como un referente en la lucha contra enfermedades emergentes como la gripe aviar o el virus del Nilo Occidental.

Antes de la llegada del coronavirus, esta empresa farmacéutica estaba centrada en la salud animal. Ahora, aunque mantiene su actividad en el ámbito veterinario, también trabaja en el desarrollo de soluciones para humanos. Su experiencia resulta especialmente valiosa en casos de zoonosis, es decir, enfermedades infecciosas que se transmiten de animales a personas.

Según fuentes de la compañía, las vacunas que han desarrollado para animales actúan contra más de 300 patógenos, una cifra que contrasta con los 31 que cubren sus vacunas para humanos.

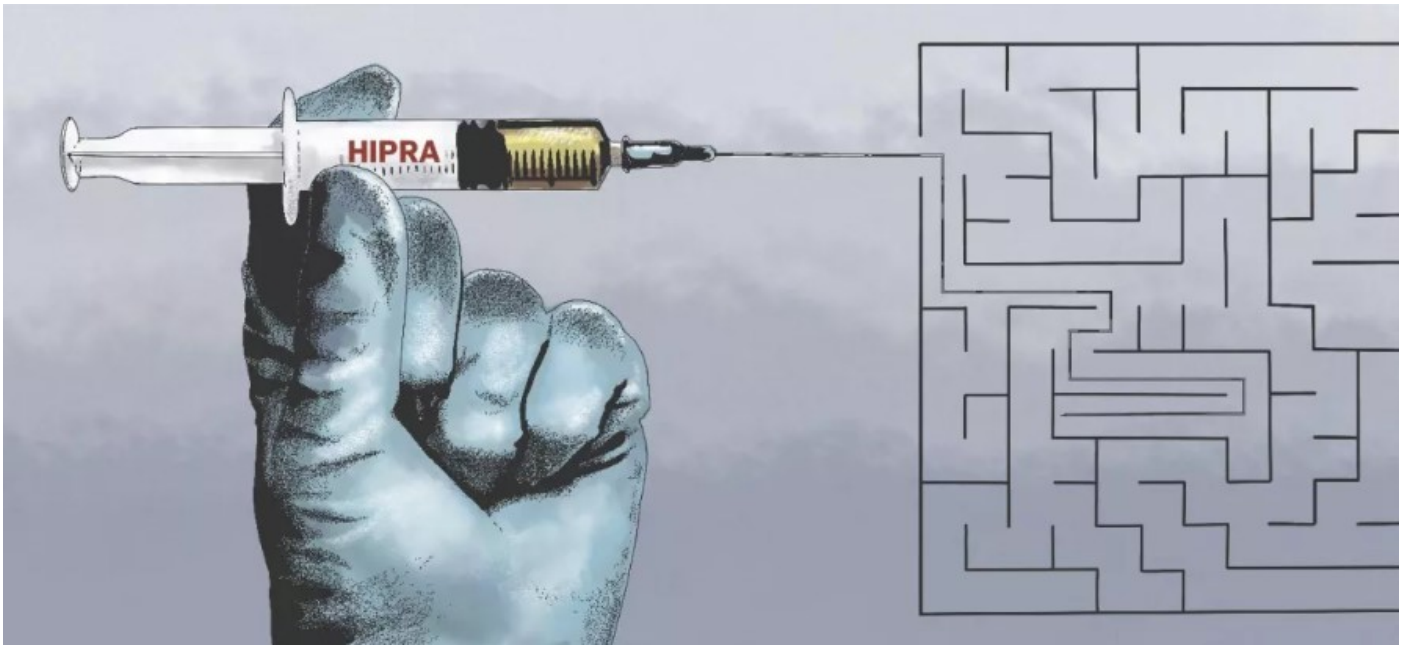
Un hito durante la crisis sanitaria

Con más de medio siglo de trayectoria y con sede en Amer (Girona), Hipra marcó un antes y un después en 2023 al convertirse en el primer laboratorio del país en sacar adelante una vacuna contra la COVID-19, denominada Bimervax.

La vacuna recibió el respaldo de la Organización Mundial de la Salud (OMS), lo que posibilitó su exportación fuera del territorio europeo.

El conocimiento acumulado durante el desarrollo de esta vacuna ha impulsado a Hipra a apostar por la fabricación para terceros, en lo que se conoce como CDMO (*Contract Development and Manufacturing Organization*).

Hoy en día, la empresa participa en diversos proyectos en colaboración con otras compañías del sector, a pesar de competir con grandes multinacionales apoyadas por potencias económicas.



Avances contra el virus del Nilo

Uno de estos proyectos se centra en crear tratamientos para reducir el impacto del virus del Nilo Occidental, un agente infeccioso emergente que actualmente no tiene tratamiento ni vacuna aprobada para su uso en personas.

El proyecto, liderado por IrsiCaixa y con participación de seis entidades de España, Francia y Dinamarca, tiene como objetivo desarrollar una vacuna preventiva capaz de generar una respuesta inmunitaria duradera y efectiva para toda la población.

Conocido como LWNVIVAT (*Limiting West Nile Virus IMpact by Novel Vaccines and Therapeutics Approaches*), el proyecto también busca diseñar y evaluar la eficacia de anticuerpos específicos contra este virus.

La autonomía sanitaria europea

La guerra comercial impulsada por el presidente estadounidense Donald Trump subrayó la necesidad de que Europa y España cuenten con mayor autonomía en el ámbito sanitario.

En este contexto, Hipra ha sido seleccionada como una de las empresas clave en el plan de emergencia de la Unión Europea en caso de futuras crisis sanitarias.

Este plan, llamado EU FAB y promovido por la Autoridad de Preparación y Respuesta ante Emergencias Sanitarias (HERA), tiene como fin reforzar la capacidad de reacción europea ante emergencias de salud pública y asegurar el suministro de vacunas a la ciudadanía.

Actualmente, Hipra emplea a unas 2.600 personas, de las cuales más del 60 % cuentan con alta cualificación, y su objetivo es seguir ampliando su plantilla.

Proyectos de expansión

A corto plazo, Hipra está enfocada en la puesta en marcha de su nuevo centro en Aiguaviva (Girona): el Campus HIPRA. Esta instalación busca posicionar a la empresa como uno de los polos biotecnológicos más destacados de Europa.

El Secretario de Estado de Sanidad, Javier Padilla, visitó recientemente la sede de la compañía para conocer de cerca sus planes de futuro.

El proyecto del Campus HIPRA comenzó en 2019 y contempla áreas de producción e investigación en una superficie de 114.000 metros cuadrados, con una inversión prevista de 472 millones de euros hasta 2026 y la generación de 580 nuevos empleos.

En este nuevo espacio, las áreas de salud humana y animal trabajarán de forma conjunta para abordar los desafíos sanitarios que puso en evidencia la pandemia y que siguen siendo relevantes, como la gripe aviar y el virus del Nilo Occidental.

Fuente: El Debate. Disponible en https://n9.cl/y8oif

PCV10 Elicits Durable Immune Response in T2D, Though Response Remains Inferior to Nondiabetics

Apr 19. These results suggest that individuals who are immunocompromised with type 2 diabetes (T2D) may need multiple doses of a pneumococcal conjugate vaccine (PCV) to sustain their protection.

* Patients with T2D have a 3-fold increased risk of pneumococcal infections, leading to higher mortality rates compared with nondiabetics.
* PCV10 vaccination in patients with T2D results in a significant, but less durable, humoral immune response compared with nondiabetics.

Adults with type 2 diabetes (T2D) vaccinated with pneumococcal conjugate vaccine 10 (PCV10) demonstrated a significant protective humoral immune response, although the response was considerably less robust with a more rapid decline in those with T2D compared with nondiabetic controls, according to the results of a study published in *Vaccine*.

T2D Heightens Risk of Serious Pneumococcal Disease

Individuals with T2D face increased risk of other comorbid conditions, including pneumococcal infections and invasive pneumococcal diseases such as pneumonia and meningitis. There is a particularly heightened risk of pneumococcal infections, as patients with T2D face a 3-fold increased risk of infections, long hospitalizations, and heightened mortality rates compared with nondiabetic counterparts. Fortunately, multiple effective formulations of PCVs are available for adults and pediatrics, although current literature on pneumococcal vaccine responses in patients with T2D is lacking.

Although some past authors have observed heightened serotype-specific antibody titers in patients with T2D compared with healthy counterparts following a pneumococcal polysaccharide vaccine (PPV), there has also been high variability in baseline concentrations and antibody functionality in T2D reported by investigators. Overall, there is limited evidence regarding the immunogenicity of PCV10, particularly in T2D. The current investigators sought to address these gaps through evaluating PCV10 humoral immune responses in a high-T2D-burden, resource-limited setting in Pakistan.

Patients With T2D Have Strong Vaccine Response, But Less Durable Than Nondiabetics

According to the investigators, this trial was the first to study PCV10 immunogenicity in such a setting. In total, 180 adults with and without T2D were enrolled in the trial. In an important note, the enrollees did not present with a history of pneumococcal vaccination. At each time point, serotype-specific anti-pneumococcal polysaccharide IgG concentration was measured against pneumococcal serotypes 1, 19F, 9V, and 18C, given the prevalence of these serotypes in the Pakistani population.

There was a robust humoral response observed against PCV10 and a significantly increased serum IgG against each tested serotype. Furthermore, the antibody concentration remained significantly higher than the baseline level against all 4 serotypes when measured 8 months post-vaccination. Still, when patients were categorized into groups based on the HbA1c values, those without T2D were found to have significantly higher total IgG concentrations than those with T2D following immunization, indicating a less-durable response to the vaccine in the T2D population.

In their discussion, the investigators pointed to the higher mortality rates among patients with diabetes due to pneumococcal infections to underscore the importance of these results. Above all, the results indicate that PCV10 is effective at increasing serotype-specific IgG concentration up to 8 months post vaccination in adults both with and without T2D. However, there was a meaningful decrease in protection after 8 months in patients with T2D, “suggesting an altered immune response to vaccination in those with T2D,” according to the investigators.

There were some limitations reported by the investigators, most prominently the fact that the single-center study was based on a small sample size. Furthermore, there were only 8 months of follow-up; a longer amount of time following vaccination for evaluation could present more thorough outcomes. Still, these results indicate the importance of repeated pneumococcal vaccination in patients with immunocompromised conditions, including T2D.

Fuente: Pharmacy Times. Disponible en https://n9.cl/77l471

What the Newest mRNA Vaccines Could Do Beyond COVID-19

Apr 19. Messenger Ribonucleic Acid (mRNA) vaccines gained global recognition during the Coronavirus Disease 2019 (COVID-19) pandemic, proving their value through rapid development, high efficacy, and broad distribution.

Unlike traditional vaccines that use weakened pathogens, mRNA vaccines instruct cells to produce antigens, triggering an immune response without the risk of infection. Their success in combating Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) demonstrated the power of this platform, especially when paired with lipid nanoparticle (LNP) delivery systems.

This breakthrough has now catalyzed interest in using mRNA technology beyond COVID-19.

Researchers are exploring its application in various infectious diseases, such as influenza, Zika, and tuberculosis, as well as in cancer immunotherapy, genetic disorders, and regenerative medicine.

The speed, adaptability, and scalability of mRNA vaccines offer a new frontier in precision medicine. However, improving delivery mechanisms and stability remains essential for maximizing their full potential in future clinical applications.

This article explores how mRNA vaccine platforms are expanding into new disease areas, from flu to cancer, and what this means for biotech innovation.

Image Credit: QINQIE99/Shutterstock.com

How it works?

mRNA vaccines work by using synthetic mRNA sequences that instruct the body's cells to produce specific antigens, typically proteins from a virus. Once injected, these mRNA molecules enter the cytoplasm of host cells, where ribosomes translate them into antigenic proteins. These proteins are then displayed on the cell surface, triggering both innate and adaptive immune responses.

Specifically, cytotoxic T cells target infected cells, while helper T cells and B cells drive antibody production. A critical component of this process is the delivery system- most commonly LNPs- which encapsulates the mRNA to protect it from enzymatic degradation and facilitate its entry into cells.

LNPs improve stability and bioavailability and enable mRNA to reach immune cells efficiently. The modularity of mRNA vaccines allows for rapid reprogramming by simply altering the encoded sequence, making them highly adaptable to different pathogens or diseases.

This flexibility, coupled with a swift and scalable production process, positions mRNA technology as a promising platform for future vaccines targeting infectious diseases, cancers, and more.

Emerging targets

mRNA vaccines are rapidly expanding beyond COVID-19, targeting a wide array of emerging diseases. For respiratory conditions like influenza and Respiratory Syncytial Virus (RSV), mRNA vaccines offer faster adaptability to viral mutations, ensuring more timely and effective protection.

In the case of Human Immunodeficiency Virus (HIV), where traditional vaccines have failed, mRNA technologies enable the generation of T cell and antibody responses that better mimic natural infection control.

Cancer is another major frontier. mRNA cancer vaccines are being designed to encode tumor-specific antigens, prompting the immune system to recognize and eliminate cancer cells. They have shown early promise in treating melanoma, prostate cancer, and non-small-cell lung cancer.

Beyond common diseases, mRNA vaccines are also entering the realm of rare and orphan diseases by offering rapid design and production customized to genetic or antigenic profiles. Their scalability, precision, and ease of modification make them ideal for rare conditions that lack commercial incentives for traditional vaccine development.

Overall, mRNA technology represents a paradigm shift in immunization, offering unmatched speed, flexibility, and potential for personalization across a wide disease spectrum- from seasonal viruses to chronic, life-threatening, and genetically rare disorders.

Personalized vaccines

Personalized vaccines in cancer immunotherapy represent a transformative approach that targets tumor-specific neoantigens (unique proteins resulting from genetic mutations in cancer cells).

Unlike traditional tumor-associated antigens, neoantigens are absent in normal tissues, making them ideal for precise immune targeting with minimal off-target effects. mRNA vaccines enable rapid, flexible, and scalable production of individualized therapies.

Using next-generation sequencing, a patient's tumor-specific mutations are identified, and computational tools predict which neoantigens can most effectively stimulate a T cell response.

The corresponding mRNA sequences are then synthesized and delivered via lipid nanoparticles to instruct the patient's cells to produce these neoantigens, triggering the immune system to attack the cancer. Clinical trials have shown encouraging results, with mRNA vaccines such as Moderna's mRNA-4157 and BioNTech's BNT122 demonstrating strong immune responses and tumor regression.

These vaccines can be integrated with immune checkpoint inhibitors to boost efficacy further. Personalized mRNA cancer vaccines hold immense promise for treating melanoma, lung, colorectal, and other cancers.

However, challenges remain in optimizing delivery, reducing manufacturing costs, and ensuring rapid turnaround from biopsy to treatment. Still, this approach signals a new era of precision oncology, where therapies are not just disease-specific but patient-specific.

Pharma activity

Moderna and BioNTech have emerged as global frontrunners in mRNA vaccine innovation, particularly after their rapid deployment of COVID-19 vaccines. Both companies leveraged decades of mRNA research and LNP delivery systems to bring safe and highly effective vaccines to market quickly.

BioNTech, in collaboration with Pfizer, developed BNT162b2, while Moderna introduced mRNA-1273, each demonstrating over 90% efficacy in clinical trials. These successes catalyzed broader biotech interest and funding into mRNA platforms.

Both companies have significantly expanded their pipelines beyond COVID-19. BioNTech is advancing mRNA therapies for influenza, tuberculosis, and various cancers while also exploring circular RNA and self-amplifying RNA (saRNA) technologies to boost durability and reduce doses. Similarly, Moderna is developing mRNA vaccines for RSV, cytomegalovirus (CMV), seasonal influenza, and rare diseases. It is also applying mRNA to cancer immunotherapy and personalized vaccine approaches.

Strategic partnerships have further accelerated innovation. BioNTech collaborates with Genentech, Fosun Pharma, and Regeneron, while Moderna partners with Merck for cancer therapies and Vertex for cystic fibrosis.

These alliances, combined with proprietary LNP technologies and scalable manufacturing, position both companies to lead the next wave of mRNA-based therapeutics and prophylactics.

Barriers and challenges

Despite their transformative potential, mRNA vaccines still face key challenges that limit their widespread adoption in personalized medicine and RNA therapeutics.

A major barrier is cold chain logistics. Most mRNA vaccines, including those developed by Moderna, require storage at sub-zero temperatures to maintain stability, complicating distribution in low-resource settings.

This restricts access to potentially life-saving treatments, especially in rural or underserved regions.

Another concern is the risk of immune-related side effects. While mRNA vaccines are designed to trigger precise immune responses, unmodified RNA or impurities can overstimulate the innate immune system, causing inflammation or adverse reactions.

Although techniques like chemical modification and LNP encapsulation help reduce this risk, they add complexity and cost to vaccine development.

Scalability remains a hurdle, as manufacturing mRNA vaccines demands high-purity raw materials, specialized infrastructure, and tightly controlled processes. As a result, transitioning mRNA technology from pandemic response tools to routine RNA therapeutics for cancer, rare diseases, or individualized treatments remains an ongoing challenge.

Addressing these barriers is essential for realizing the full promise of mRNA vaccines in personalized medicine and advancing the next generation of oncology vaccine platforms.

Concluding remarks

The future of the mRNA vaccine industry looks promising, with ongoing innovations poised to reshape global healthcare. Following the success of COVID-19 vaccines, the industry is shifting toward next-generation platforms that offer greater efficacy, stability, and broader applications.

Companies are exploring self-amplifying and circular mRNA structures, which can increase protein expression and require lower doses, reducing cost and side effects.

Novel delivery systems, including ionizable lipids, dendrimer-based carriers, and biologically derived exosomes, are being developed to enhance precision and reduce toxicity.

These advances aim to overcome current challenges like thermal instability, immune overactivation, and the need for cold chain logistics. mRNA technology is also expanding into oncology, personalized medicine, and treatments for genetic and rare diseases.

Organ-specific targeting and new administration routes like inhalation and oral delivery could make mRNA therapies more accessible and user-friendly. As a result, mRNA platforms are expected to lead the next era of scalable, rapid, and adaptable therapeutics worldwide.

Fuente: News Medical Life Sciences. Disponible en https://n9.cl/e5zsf

China boosts public health with vaccine and immunization progress

Apr 20. China has made significant progress in vaccine development and immunization, marked by a growing portfolio of domestically produced vaccines and remarkable public health results.

These achievements were highlighted at the 2025 National Vaccines and Health Conference, held over the weekend in Wuhan, capital of Hubei Province in central China, and attended by nearly 3,000 public health officials and medical professionals.

Over the past years, China has achieved notable breakthroughs in vaccine technology. Milestones include the successful development of homegrown HPV and Ebola vaccines, as well as advances in pneumococcal conjugate vaccines against 13 types of bacteria and shingles vaccines.

Several Chinese vaccines have received prequalification from the World Health Organization, enabling their distribution in partner countries of the Belt and Road Initiative.

These advancements underscore a broader shift in China's vaccine industry -- from focusing primarily on domestic needs to increasingly contributing to the global vaccine supply chain, according to Wang Yunfu, head of the Health Commission of Hubei Province.

The global biotechnology landscape has also helped accelerate this transformation, as the participants pointed out. In recent years, breakthroughs in technologies such as mRNA platforms, viral vectors, and nanoparticle delivery systems have opened up unprecedented opportunities for vaccine research and development, significantly improving both efficiency and immune response.

Alongside scientific innovation, China has placed strong emphasis on safety and regulatory oversight. In 2019, it became the first country to implement a comprehensive vaccine administration law, followed by updated immunization standards introduced in 2023.

A nationwide traceability system has been set up, ensuring that every dose can be tracked from production to administration, enhancing transparency and public trust.

China's national immunization programs have yielded strong public health results.

The country achieved polio-free status in 2000, eliminated neonatal tetanus by 2012, and has reported no locally transmitted diphtheria cases since 2007. The prevalence of hepatitis B surface antigen among children under five declined from nearly 10 percent in 1992 to just 0.3 percent in 2020.

Routine vaccination coverage has remained above 90 percent nationwide, supported by an extensive healthcare infrastructure that ensures every township has at least one vaccination unit.

Efforts to expand access and improve service delivery remain a central priority. "Public health should be protected through more accessible and higher-quality vaccine services," said Li Bin, president of the Chinese Preventive Medicine Association, adding that this goal was reflected in the conference's theme.

For example, in Hubei, girls aged 14 are now eligible for free HPV vaccination, and immunization for newborns is being integrated into the birth registration process to ensure early and timely coverage.

Looking ahead, China is preparing to refine its immunization strategy and services further.

Health authorities are considering dynamic adjustments to the national immunization program to prioritize vaccines with high cost-effectiveness or those associated with costly diseases. In some regions, pilots may allow the use of personal health insurance accounts to cover non-mandatory vaccines, reducing out-of-pocket expenses for the public.

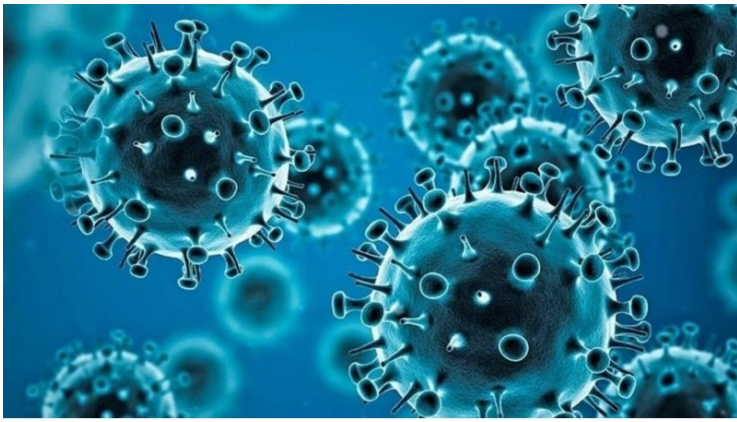
Digital tools will also play an increasing role in modernizing immunization services. Electronic vaccination records are being shared across provinces, while artificial intelligence (AI) is assisting with appointment scheduling. Big data platforms are improving vaccine inventory management and logistics.

Yin Zundong, head of the Immunization Program Center at the Chinese Center for Disease Control and Prevention, emphasized the role of advanced data technologies.

"With the help of big data and AI, disease surveillance and early warning systems can become more accurate and efficient," Yin said. "In the future, data-driven tools will enable precise assessments of vaccine protection efficacy."

Fuente: Xinhua. Disponible en https://n9.cl/5kqyu

Las claves del primer tratado global ante pandemias



21 abr. A partir de la creación del primer tratado global de la historia sobre pandemias, con más de 190 países que participan, la Organización Mundial de la Salud (OMS) lo lanzó en pos de contar con pautas para actuar ante crisis sanitarias y no caer en errores como sucedió con la COVID-19.

De esta forma, el tratado busca ayudar a mejorar la coordinación entre los países y repartir en forma más equitativa los recursos disponibles para enfrentar futuras amenazas, las cuales ocurrirán tarde o temprano con algún nuevo patógeno según especificaron los científicos.

Tratado global sobre pandemias

El acuerdo ofrece las directrices para que, tanto a niveles nacional e internacional, se desarrollen mecanismos de prevención, de preparación y de respuesta a futuras pandemias, con un énfasis en aspectos como la solidaridad y reciprocidad, aunque no en la medida que los países de desarrollo medio y bajo esperaban. Además, varios de los participantes lamentaron que gran parte de los compromisos asumidos en el acuerdo sean de carácter voluntario.

Las claves del tratado de pandemias

Algunas de las claves para comprender el proceso que condujo a este acuerdo, que debe ser adoptado oficialmente durante la próxima asamblea de la OMS (del 19 al 27 de mayo) en Ginebra, son:

- Inicio de las negociaciones: La idea de este tratado fue lanzada por líderes europeos en diciembre de 2020, el primer año de la pandemia, y fue respaldada por el director general de la OMS, Tedros Adhanom Ghebreyesus. Tiempo después, los Estados miembros de la organización aprobaron el inicio de las negociaciones y se dieron de plazo hasta 2024 para completarlas, aunque tuvieron que prolongar ese plazo un año más.

Con esa finalidad se constituyó un Órgano de Negociación Intergubernamental (INB), formado por los 194 Estados miembros, pero que tras el anuncio de retirada de Estados Unidos de la OMS se quedó con un miembro menos.

- Importancia del tratado de pandemias: La OMS, apoyada en las evidencias históricas y epidemiológicas, da por seguro que la pandemia de COVID-19 -causante de unas 20 millones de muertes- no será la última y considera que un tratado internacional ayudaría a preparar mejor al mundo para las que lleguen en el futuro. El texto del acuerdo subraya que las pandemias son una amenaza para las sociedades y economías, y que se requiere cooperación y solidaridad para combatirlas. Por ello, el objetivo del acuerdo es mejorar la prevención, preparación y respuesta frente a emergencias sanitarias de tal magnitud.
- Áreas del acuerdo: El tratado señala que los países firmantes deben fortalecer sus sistemas de alerta temprana y de identificación de nuevas enfermedades zoonóticas (las que se transmiten del animal al ser humano) y fortalecer la bioseguridad en los laboratorios. A su vez, establece un nuevo mecanismo de acceso y participación en los beneficios que se obtengan de los patógenos compartidos en un sistema existente y que gestiona la OMS.

La transferencia de tecnología, generalmente desarrollada por países desarrollados para permitir que países en desarrollo incrementen sus capacidades propias de manufactura de productos farmacéuticos, se hará conforme a los términos que las partes "hayan acordado mutuamente" y no de manera obligatoria. En este tema, los países con potentes industrias farmacéuticas mostraron poca voluntad de ceder en su posición.

- Trascendencia del acuerdo: El tratado contra las pandemias es solo el segundo acuerdo internacional entre países en el campo sanitario que logra consensuarse, tras la Convención para el Control del Tabaco (2003). Una de sus posibles consecuencias será el refuerzo de las competencias de la OMS en caso de pandemia, después de que en la de COVID-19 el organismo recibiera numerosas críticas por su supuesta falta de previsión o por decisiones equivocadas.

Fuente: Rosario3. Disponible en https://n9.cl/l6jb3

Somalia launches nationwide vaccination against pneumococcal disease and rotavirus diarrhoea

Apr 22. The Federal Republic of Somalia has officially introduced two life-saving vaccines into its national immunization programme against pneumococcal infections and the other against rotavirus diarrhoea. The country has simultaneously launched a nationwide measles catch-up campaign to combat one of the leading killers of children in the country.

This integrated effort marks a major milestone in the country's journey to reduce the prevalence of three of the most dangerous causes of disease and death in Somali children – measles, pneumonia, and rotavirus-related diarrhoea.

The Somali Ministry of Health is leading this effort with support from Gavi, the Vaccine Alliance, the World Health Organization (WHO), and UNICEF. It comes at a critical time as Somalia grapples with persistent measles outbreaks as well as deaths caused by pneumonia and rotavirus-related diarrhoea. Together, measles, pneumonia, and diarrhoea account for an estimated 43 percent of annual child deaths in the country.

"The introduction of these two vaccines marks a significant step forward in our national effort to reduce child deaths and build a healthier future for Somalia's next generation," said Dr Ali Haji Adam Abubakar, the Federal Minister of Health of Somalia. "Our government is committed to investing in the health of our children and strengthening our immunization services in partnership with global and regional health partners."

Pneumococcal infections can cause severe diseases such as pneumonia, meningitis and septicemia. Countries that have incorporated the pneumococcal conjugate vaccine (PCV) into their routine immunization schedules have reported significant declines in infant deaths and hospitalizations due to bacterial infections.

Similarly, rotavirus is a leading cause of severe diarrhoea in young children. It contributes significantly to malnutrition and death due to dehydration.

In sub-Saharan Africa alone, rotavirus is estimated to cause over 200,000 deaths among children under five each year. Before the widespread use of the rotavirus vaccine, the virus was responsible for approximately 40% of hospital admissions due to severe diarrhoea in children.

Thanks to support and input from countries, civil society and the Gavi Board, introduction of the two vaccines is supported by Gavi's revised policy for fragility, emergencies and displaced populations, which provides additional and flexible support to countries whose immunisation efforts are severely undermined by these issues. Ensuring future tailored support to countries is dependent on continued global investment in immunization, including funding for Gavi's next five-year strategic period starting in 2026.

Commenting on the development, Patience Musanhu, Senior Country Manager for Somalia at Gavi, the Vaccine Alliance, said, "We commend the Federal Ministry of Health, frontline health and community workers, and other stakeholders involved for the commitment to introduce these two critical vaccines amid multiple competing priorities. Given the burden of these diseases in Somalia, this is an investment well worth making – one that will save lives and have a transformative impact on health and development, families, communities, and the health system. Gavi remains committed to working with the government and partners to support the vision of a healthier, more prosperous future for Somalia."

The introduction of these two vaccines marks a major step forward in strengthening Somalia's immunization system and protecting children from preventable disease outbreaks. By expanding the national immunization schedule, Somalia is enhancing its ability to safeguard children against the deadly threats of pneumonia and diarrhoea.

The measles catch-up campaign is designed to rapidly close immunity gaps among children who have missed routine vaccinations due to insecurity, displacement, or service disruptions. The campaign aims to reach millions of children across the country, protecting them from one of the most contagious and deadly vaccine-preventable diseases.

"This is more than just a vaccine launch – it is a promise to Somalia's children that their lives matter, their health matters," said Dr Kamil Mohamed Ali, WHO Representative a.i. For years, we have witnessed too many young lives lost to diseases we now have the power to prevent. With these new vaccines and the measles catch-up campaign, we are turning the tide and reaffirming our commitment to equity, access, and a healthier future for all."

"The introduction of these two vaccines is a big win for children in Somalia," said Dr Wafaa Saeed, UNICEF Representative for Somalia. "By this action alone, and with the measles campaign, we will be preventing nearly half of the deaths occurring every year among young children in Somalia, and sparing families the grief and sorrow of losing their loved ones. These children will be given an opportunity to grow up, realize their dreams, and contribute to their nation's progress."

This joint effort reflects the unwavering commitment of the Somali government and its partners to expand equitable access to essential health services and protect every child in Somalia from preventable diseases, laying the foundation for a healthier, more resilient future.

Fuente: Gavi. Disponible en https://n9.cl/n5eii

Protección para los niños: Comienza en Cuba la Campaña Nacional de vacunación antipoliomielítica oral bivalente

22 abr. Este 21 de abril comenzó en Cuba la 64 Campaña Nacional de vacunación antipoliomielítica oral bivalente, coincidiendo con la 23 Semana de Vacunación de las Américas y la 14 Semana Mundial de Inmunización.

Se trata de un esfuerzo masivo que se realiza anualmente para mantener la poliomielitis eliminada, asegura la Doctora en Ciencias Lena López Ambron, directora del Programa Nacional de Inmunización del Ministerio de Salud Pública (Minsap), subrayando el compromiso del país y del sector sanitario con el cuidado de la infancia.

Además, refiere que se establecerá una semana de recuperación del 28 de abril al 3 de mayo para enfermos, u otras causas que le impidieron vacunarse en la semana de la campaña. La segunda etapa se ejecutará del 16 al 21 de junio, con recuperación del 23 al 28 de junio.

"Detalla que, en esta primera etapa, programada del 21 al 26 de abril, de forma simultánea en todo el territorio nacional, se vacunará con la primera dosis a todos los niños mayores de un mes y menores de tres años."

La poliomielitis, una enfermedad grave y potencialmente incapacitante, fue eliminada en Cuba en apenas cuatro meses tras la primera campaña de vacunación en 1962. Desde entonces, comenta la doctora, la disciplina de las familias y su responsabilidad con la vacunación han sido clave para mantener esta condición, que a la vez se traduce en alegrías para los hogares.

"La participación activa y responsable de los padres asegura no solo la salud de sus propios hijos, sino también la protección colectiva de toda la población".

En sus valoraciones, López Ambron asegura que vacunar es salvar vidas. "La vacunación no solo previene enfermedades, sino que también fortalece el sistema de salud y preserva el bienestar de las futuras generaciones".

La 64 Campaña Nacional de vacunación antipoliomielítica oral bivalente, cuyo acto central de inicio se va a realizar en el policlínico Guiteras de La Habana Vieja, representa una oportunidad para garantizar que los niños cubanos sigan creciendo libres de poliomielitis, un logro del que todo el país puede sentirse orgulloso.

Fuente: Cubadebate. Disponible en https://n9.cl/r2niv

Una nueva innovación húngara podría acelerar la producción de vacunas

22 abr. Sentimento, que fabrica equipos para las industrias farmacéutica, alimentaria y química, ha desarrollado un sistema complejo para acelerar la producción de vacunas a base de huevo en un proyecto con Fluart Innovative Vaccines y la Universidad de Debrecen.

Sentimento dijo a MTI que los socios recibieron alrededor de 800 millones de HUF del Fondo Nacional de I+D+i para apoyar un proyecto de cuatro años de duración que suma 1.1 millones de HUF. Sentimiento Ltd. Ha dedicado cuatro años al desarrollo de un complejo sistema que analiza la utilidad de los óvulos que se van a analizar, los corta y aspira, y controla el material aspirado, además de la pureza requerida en la industria farmacéutica. Su capacidad diaria es de 27,500 óvulos. El gerente técnico, Norbert Imre Imre, declaró a MTI que la solución desarrollada podría cubrir un nicho de mercado importante tanto a nivel nacional como internacional.

Con el prototipo, pueden automatizar la parte más compleja y laboriosa de la propagación del virus a partir de huevos, acelerando así la producción de anticuerpos. Sentimento Ltd. confía en que la producción en masa pueda comenzar en 2025 y que las ventas comiencen en 2026, con un aumento previsto del 30 % en la facturación. Ya han recibido un gran interés internacional, añadió. Fundada en 2008, Sentimento Ltd. trabaja principalmente en la industria farmacéutica, diseñando, construyendo, distribuyendo y reparando equipos y componentes personalizados. Según datos disponibles públicamente, Sentimento Ltd. tuvo unas ventas netas de 3 millones de HUF (7.33 millones de EUR) y un beneficio después de impuestos de 132 millones de HUF (320,000 EUR) en 2023, en comparación con 1.7 millones de HUF en 2022 y un beneficio después de impuestos de 12 millones de HUF.

Fuente: DAILY NEWS HUNGARY. Disponible en https://n9.cl/941pe

BioCubaFarma en la búsqueda de nuevas alianzas para el desarrollo científico biofarmacéutico

22 abr. Expandir la construcción de alianzas estratégicas, fundamentalmente para identificar nuevos proveedores para la industria biofamacéutica cubana es uno de los principales propósitos de BioCubaFarma durante la XVI Feria Internacional Salud para Todos, expresó a Granma, Mayda Mauri Pérez, presidenta del grupo empresarial biotecnológico y farmacéutico.

Destacó que es una realidad las limitantes que impone el bloqueo del gobierno de los EE. UU. Para la industria por lo que esta tiene que prepararse para constantemente seguir recibiendo negativas de los proveedores.

Debido a ello, manifestó «estamos en ese camino de diversificar la cartera de proveedores de nuestra industria con el objetivo de tener nuevas alternativas o variantes a la hora de decidir sobre la adquisición de las materias primas, de los insumos, de las piezas de respuesta, equipos y dispositivos que necesita la industria, para satisfacer la demanda de medicamentos y de otros insumos que proveemos a nuestro Sistema Nacional de Salud».

Mauri Pérez puntualizó que otra de las metas durante este evento es la identificación de inversionistas con la particularidad de que serían «inversionistas a riesgo», para que participen junto a nosotros en el codesarrollo de proyectos que son muy innovadores, pero que requieren, para poder llegar al mercado, inversiones importantes de capitales.

Entonces, reiteró estamos en la búsqueda de esos inversionistas, pues en las propuestas de codesarrollo estamos hablando de productos que son muy innovadores y que van dirigidos a terapias, fundamentalmente de las principales enfermedades de las que padece nuestra población, como son las, las oncológicas, las neurodegenerativas y de otras índoles.

«En estos importantes eventos, la misión de BioCubaFarma es precisamente identificar nuevas alternativas que permitan que nuestra industria gane en solidez, con el propósito de darle una mejor atención al suministro de los medicamentos a la población cubana», significó.

A la par del programa de negocios, el grupo empresarial potencia su programa científico dentro de la Feria asociada a la V Convención Internacional Cuba Salud 2025, enfocado a mostrar los resultados de la investigación científica biotecnológica y farmacéutica, además del lanzamiento de productos de su cartera de entidades.

Fuente: Granma. Disponible en https://n9.cl/kuvja

Cuba busca expandir cooperación con China en biotecnología

22 abr. Cuba busca expandir la cooperación con China en materia biotecnológica, aseguró la presidenta del estatal grupo empresarial BioCubaFarma, Mayda Mauri.

"Podemos decir que hoy estamos en pleno proceso de expansión de la alianza estratégica con la República Popular China", dijo a Xinhua la directiva, en la apertura de la XVI Feria Comercial Salud para Todos, que forma parte de la V Convención Internacional "Cuba Salud 2025", que sesiona desde este lunes y hasta el jueves.

BioCubaFarma tiene tres empresas mixtas en territorio chino y una de capital totalmente cubano, además de trabajar en tres laboratorios conjuntos establecidos en China.

Mauri destacó el trabajo que realiza la empresa cubana BioBridge Medical Technology, asentada en el Parque de Alta Tecnología de Shijiazhuang, en la provincia china de Hebei.

"Esa empresa tiene como misión convertirse en un puente que una a China con América Latina, donde BioCubaFarma estaría identificando productos que pudiera llevar al mercado latinoamericano, donde ya BioCubaFarma tiene una amplia red de distribución comercial", explicó la directiva.

Calificó como "excelentes" las perspectivas de crecimiento en la relación bilateral y confirmó la presencia del grupo empresarial cubano en la venidera VIII Exposición Internacional de Importaciones de China (CIIE, siglas en inglés) de Sanhghai.

Por su parte, el director del Centro de Neurociencias de Cuba, Mitchell Valdés, subrayó el empeño de BioCubaFarma de internacionalizar las investigaciones científicas.

"Eso quiere decir, donde quiera que sea posible, crear laboratorios conjuntos donde se unan los recursos de más de un país en la solución de los problemas complejos de salud que tenemos que enfrentar", amplió el científico cubano.

Valdés destacó como un importante resultado la producción en China por primera vez de anticuerpos monoclonales para el tratamiento de cáncer con tecnología desarrollada por el Centro de Inmunología Molecular (CIM) de Cuba.

"El objetivo es hacer avanzar más rápido la ciencia, uniendo el esfuerzo, integrando las tareas de investigación", explicó en referencia al trabajo conjunto de científicos cubanos y chinos.

Una decena de empresas chinas asisten al foro comercial de la Convención "Cuba Salud 2025", que está dedicada a China "por las excelentes relaciones y resultados del trabajo durante décadas", afirmó el vice primer ministro Eduardo Martínez, en la inauguración del encuentro.

Fuente: XINHUA NET. Disponible en https://n9.cl/zrpoj

World Immunization Week 2025: Immunization for All is Humanly Possible

Apr 24. World Immunization Week, celebrated from 24 to 30 of April , aims to promote the life-saving power of immunization to protect people of all ages against vaccine-preventable diseases.

Vaccines are one of humanity's greatest achievements. Since 1974, they've saved 154 million lives – that's more than 3 million lives a year or six people every minute for five decades. In the same period, vaccination has reduced infant deaths by 40%, and more children now live to see their first birthday and beyond than at any other time in human history. Measles vaccine alone accounts for 60% of those lives saved.

More lives are now being saved, among people of all ages, with more recent vaccines against malaria, HPV, cholera, dengue, meningitis, RSV, Ebola and mpox, reflecting an era of massive scientific advancements in vaccine development and delivery.

Every new child born deserves the benefit of these vaccines, yet millions still miss out each year. To ensure that the immunization successes of the past 50 years are built on in the coming decades, this year's theme, Immunization for All is Humanly Possible, aims to continue the "Humanly Possible" campaign with a future forward look on the importance of ensuring more people, especially children, are vaccinated.

As 2025 is the mid-point in the Immunization Agenda 2030, World Immunization Week will look at not only what immunization does to improve lives today but what immunization can achieve in the coming decades as more children are reached with essential immunizations and new and newer vaccines are developed to cover a broader range of diseases and ages.

Vaccines are proof that less disease, more life is possible when we put our minds to it. In 2025, let's show the world that Immunization of All is Humanly Possible.

Fuente: World Health Organization. Disponible en https://n9.cl/2111z

US FDA asks Novavax to complete new clinical trial for delayed COVID-19 shot, WSJ reports

Apr 25. Federal regulators have asked Novavax (NVAX.O), opens new tab to complete an additional clinical trial on its COVID-19 vaccine after previously delaying approval, the Wall Street Journal reported on Friday, citing people familiar with the matter.

Shares of the vaccine maker fell nearly 6% to close at $6.67. The stock was down more than 1% in after-market trade.

The U.S. Food and Drug Administration asked the Maryland-based company to show its vaccine is effective with another study after appointees under Health and Human Services Secretary Robert F. Kennedy Jr. intervened in the approval process, the report added.

Novavax said the company has responded to FDA's Post Marketing Commitment (PMC) request and is awaiting feedback from the agency.

The vaccine maker added that its application is approvable and it looks forward to moving to approval as soon as possible, without disclosing further details.

The FDA's request for new data gives Novavax room to negotiate for a smaller, less expensive study, perhaps costing only a few million dollars, the newspaper reported.

The vaccine's prospects were thrown into doubt after the FDA missed its April 1 deadline to approve the shot and Kennedy attributed the delay to the shot's composition in a CBS interview earlier this month.

Novavax on Wednesday said U.S. regulators asked the company to produce more data on its COVID-19 vaccine if it gets full approval, easing concerns around the future of the shot and sending its shares soaring.

This comes amid mass layoffs, including high-ranking scientists, as part of a major overhaul under Kennedy that has prompted worries about potential disruptions to the regulatory review of treatments and vaccines.

The company wants to convert the vaccine's emergency authorization from 2022 into a full approval that would allow for expanded use and to compete better against messenger RNA shots from rivals Moderna, Pfizer, and BioNTech.

Novavax's protein-based technology offers an alternative to mRNA vaccines from Pfizer-BioNTech and Moderna, which received full approvals in 2021 and 2022, respectively.

Fuente: Reuters. Disponible en https://n9.cl/knzbe

Takeda to launch dengue vaccine in India next year

Apr 27. Japanese major Takeda plans to launch its dengue vaccine, Qdenga, in India next year, in a manufacturing partnership with Hyderabad-based Biological E (Bio E) to align with the 'Make-in-India' initiative.

Having recognised dengue as a "global health challenge," the over $23 bn company will adopt a "tiered pricing model for its first global vaccine to maximise access", Derek Wallace, president, global vaccine business unit, Takeda, told TOI in an exclusive interview.

The company, with focus on oncology, rare diseases and gastroenterology, negotiates lower prices for centralised government procurement on a country-by-country basis, and a similar strategy will be implemented in India, he said.

Elaborating on the regulatory process, he said, it ``is ongoing and on track'', with clinical trials underway to generate local safety data. "Our vaccine has been approved in 40 countries, and we anticipate the vaccine will be licensed in India in 2026'', he added.

``We plan to introduce the vaccine in both private and public sectors simultaneously. The initial conversation aligns with WHO guidelines for implementing public programs for the pediatric population. However, we are introducing the vaccine in the private sector for both pediatric and adult populations'', Wallace added.

While Takeda has a 240-year legacy and over 70 years in vaccines (primarily pediatric) in Japan, Qdenga is the company's first globally developed and marketed vaccine. It is a tetravalent live-attenuated vaccine targeting all four dengue serotypes, and has a two-dose regimen with a three-month interval.

Currently, the company's German facility produces single-dose vials, while Bio E will produce both single and multi-dose formats. Multi-dose vials are preferred in public health programs because they reduce costs, optimize storage, and simplify distribution.

Significantly, the biggie plans to establish the entire value chain in India, over the next few years.

Over the past 20 years, dengue cases have surged eightfold due to climate change, urbanization, and globalization. There were nearly three lakh reported cases of dengue in India last year. ``Before launching in India, it's crucial to build trust with government stakeholders and establish partnerships. This visit allows me to engage with senior public health and government officials. Our focus is on making the vaccine accessible to as many people as possible, as quickly as possible'', he said.

Fuente: MSN. Disponible en https://n9.cl/zy3a1

China: Desarrollan una vacuna contra la COVID-19 a partir de arroz transgénico

28 abr. Investigadores de la Universidad de Yangzhou, en China, han desarrollado una vacunas experimental contra el SARS-CoV-2 utilizando plantas de arroz modificadas genéticamente para producir la subunidad S1 de la proteína S del virus. Los resultados del estudio han sido publicados en la revista *Plant Biotechnology Journal*.

El objetivo del proyecto ha sido explorar alternativas accesibles y seguras a las vacunas comerciales actuales, especialmente en un contexto donde el virus sigue mutando y extendiéndose por todo el mundo. Según los autores, las plantas ofrecen una plataforma eficaz y de bajo coste para la producción de proteínas recombinantes con aplicaciones farmacéuticas, incluidas las vacunas.

Para la obtención de esta vacuna vegetal, se diseñaron dos vectores binarios con distintos promotores y se introdujeron en plantas de arroz mediante la técnica de transformación genética con *Agrobacterium*. A partir de este proceso se generaron 56 líneas de arroz transgénico. Los análisis de expresión confirmaron que las semillas de estas plantas producían eficazmente la proteína recombinante S1 (rS1), especialmente bajo el control del promotor pGt1.

La proteína rS1 fue purificada y utilizada en ensayos con ratones para evaluar su capacidad de unirse a la enzima convertidora de angiotensina 2 humana, que es el receptor del virus, y su potencial inmunógeno. Las pruebas mostraron que esta proteína derivada del arroz puede inducir una respuesta inmune tanto humoral como celular.

El estudio concluye que la rS1 podría emplearse como base para desarrollar vacunas asequibles contra la COVID-19, y que este enfoque también podría aplicarse al diseño de inmunizaciones frente a otros virus.

Fuente: Agrodigital.com. Disponible en https://n9.cl/jzy0w

Europa se abre la compra centralizada de vacunas para la próxima campaña de gripe

29 abr. La Unión Europea ha firmado un nuevo contrato de adquisición conjunta, firmado por la Comisión Europea, a través de la Autoridad de Preparación y Respuesta ante Emergencias Sanitarias. A través de él ofrece a 17 países la posibilidad de adquirir hasta 27.403.200 dosis de vacunas contra la gripe pandémica.

El acuerdo, firmado con la empresa farmacéutica Seqirus UK Ltd., garantiza el suministro de Foclivia, una vacuna para proteger contra la gripe cuando la Organización Mundial de la Salud o la Unión Europea declaran oficialmente una pandemia. Una pandemia de gripe se produce cuando un nuevo tipo (cepa) del virus de la gripe puede propagarse fácilmente de persona a persona porque las personas no tienen inmunidad contra él. Si bien es difícil predecir una pandemia de gripe, el contrato marco de adquisición conjunta de hoy forma parte del trabajo más amplio de la Comisión para reforzar la preparación y respuesta a nivel de la UE para proteger la salud de los ciudadanos.

Esta adquisición conjunta se basa en un acuerdo previo firmado con CSL Seqirus en 2019 y un acuerdo firmado con GSK en 2022, en virtud del cual los países participantes pueden adquirir dosis de vacunas en caso de una pandemia de gripe.

El contrato marco tiene una duración de 48 meses y puede renovarse dos veces por un período de 12 meses cada una.

La propuesta tiene su precedente en los acuerdos de compra conjunta de vacunas realizados durante la pandemia de COVID-19 para mejorar el acceso equitativo a las contramedidas médicas, la seguridad del suministro y la preparación de los países participantes ante las amenazas sanitarias.

Fuente: DiarioFarma. Disponible en https://n9.cl/te8e58

Challenges, innovations and future directions in dengue vaccine development

Apr 30. Dengue fever, caused by a flavivirus named DENV, is a major global health challenge, risking almost half of the world's population. Since the early 20th century, the scientific community has faced multiple challenges in developing effective dengue vaccines. This spanned a variety of techniques—from the use of ox bile to weaken DENV to the chemical processing of DENV-infected mosquitoes. However, the limitations of these techniques and the urgent need to save millions of people from the infection in its endemic regions led to the development of more sophisticated dengue vaccines.

In a recent review published in Pediatric Investigation, lead authors Professor Kevin C. Kain from the University of Toronto, Canada, and Dr. Ran Wang, Associate Professor at the Capital Medical University, China, discuss the current status and implications of dengue vaccines such as CYD-TDV, TAK-003, and Butantan-DV, while exploring the challenges in dengue vaccine development like ADE, and proposes future directions in this field.

DENV has four serotypes (DENV-1 to DENV-4) and triggers both protective and pathogenic immune responses. Serotype-specific immune responses are typical when infected for the first time, whereas secondary infection may lead to more severe dengue due to ADE.

"ADE is initiated when immune complexes of DENV and IgG antibodies bind to Fcγ receptors (FcγR) on

myeloid cells. This suppresses antiviral defenses and enhances viral replication," explains Professor Kain. This is an important aspect to consider while designing vaccines for dengue.

The review draws from insights and implications from three dengue vaccines—CYD-TDV (Dengvaxia) was the first licensed dengue vaccine and showed efficacy in phase III clinical trials. However, it was found to have reduced protection against DENV-1, DENV-2, and DENV-3.

Moreover, this vaccine was only recommended for individuals with confirmed prior DENV infection, limiting its practical application. Further, a vaccination regimen of three doses over 12 months was particularly difficult to achieve in resource-limited settings. Due to these reasons, CYD-TDV was withdrawn from widespread use, although the WHO still recommends it for individuals aged 9-45 years with prior DENV infection.

The second vaccine—TAK-003—was evaluated over a four-and-a-half-year-long phase III trial across eight countries where dengue is endemic. With an overall efficacy of 61.2% (against current dengue infection) and 84.1% (against hospitalized cases), it offered strong protection against DENV-1 and DENV-2 serotypes. But, due to the insufficient number of cases of the other two serotypes, TAK-003's efficacy against these could not be evaluated. This vaccine has a two-dose regimen, presenting logistical challenges as in the case of CYD-TDV.

Contrary to the above cases, the Butantan-DV vaccine with its single-dose regimen proved to have an edge over the others in simplifying vaccination where health care facilities were limited.

Dr. Wang explains, "A 2-year analysis reported an overall efficacy of 73.6% in sero-naïve individuals and 89.2% in those with prior dengue exposure, with protection against DENV-1 (89.5%) and DENV-2 (69.6%)".

Also, in a study that spanned more than three years, Butantan-DV demonstrated an 89% decrease in severe dengue and dengue with warning signs. However, the efficacy of this vaccine against DENV-3 and DENV-4 is yet to be established. Although the current dengue vaccines exhibit effective reduction of severe and fatal dengue in clinical trials, their impact on individuals aged above 60 years is still unclear.

The possibility of severe dengue after vaccination has been a significant challenge, particularly thought to be driven by ADE. When non-neutralizing, cross-reactive antibodies recognize conserved epitopes on the DENV envelope protein, it triggers immune responses that weaken antiviral activity, leading to severe disease.

"Understanding the role of conserved epitopes and FcγR signaling in ADE is crucial for dengue vaccine development, and ADE issues in the real world may only be revealed through efficacy studies in phase IV clinical trials of vaccines", comments Professor Kain.

Looking ahead, global collaboration among researchers, health agencies, and vaccine developers will be essential to advancing dengue vaccine research. Future efforts should explore diverse platforms like mRNA vaccines and focus on avoiding ADE. Priorities include: 1) phase IV trials to refine strategies, 2) vaccines adaptable across populations and serotypes, and 3) region-specific formulations targeting local DENV variants.

With global collaboration, advanced vaccine platforms, and a better understanding of ADE, we may finally be on the path toward eliminating dengue.

Fuente: Medical Xpress. Disponible en https://n9.cl/7odeg

Eventos

Webinar: Competencias de los trabajadores involucrados en la preparación y respuesta frente a las emergencias de salud y desastres

El objetivo del seminario web es analizar las capacidades de los trabajadores de salud para la respuesta a emergencias y desastres en la Región de las Américas.

Considerando la relevancia del tema, en este seminario web se presentará la propuesta de competencias esenciales para enfrentar emergencias y desastres en el ámbito de la salud. Esta actividad es organizada conjuntamente por la Unidad de Recursos Humanos para la Salud del Departamento de Sistemas y Servicios de Salud, y el Departamento de Emergencias de Salud de la OPS.

9 de mayo de 2025

11:00 a.m. a 12:30 p.m. *Eastern Daylight Time* (EDT)

Interpretación simultánea del español al francés, inglés y portugués.

Para el Registro

https://paho-org.zoom.us/webinar/register/WN_idqQCHAXTFqN5WucYZzKaw#/registration

La Región de las Américas ocupa el segundo lugar después de Asia en términos de impacto de desastres. Casi el 21% de todos los desastres en el mundo entre 2013 y 2018 se produjeron en la Región de las Américas, lo que provocó 141 millones de víctimas y más de 10.000 muertes.

Los países de la Región enfrentan una escasez de personal sanitario, una distribución inequitativa y una falta de adecuación con respecto a las necesidades y las competencias, lo que se suma a la falta de formación adecuada en materia de preparación, prevención y respuesta a emergencias y desastres.

El personal de salud desempeña un papel fundamental en la gestión de la respuesta ante emergencias y desastre, ya que trabaja en estrecha colaboración con las comunidades y, por tanto, cerca de los potenciales eventos. Los profesionales de la salud son trabajadores de primera línea en condiciones estables y más aún durante situaciones de emergencia y crisis, prestando servicio tanto en entornos prehospitalarios como hospitalarios. Una gestión adecuada de la respuesta a emergencias requiere que la fuerza de trabajo en salud cuente con las competencias adecuadas.

Fuente: Organización Panamericana de la Salud. Disponible en https://n9.cl/kpjzax

Reunión del Grupo Asesor Estratégico de Expertos en Inmunización (SAGE)

22-25 de septiembre de 2025.

Sede de la Organización Mundial de la Salud .

La participación es solo por invitación. Si no ha recibido la invitación por correo electrónico y desea asistir, póngase en contacto con: sageexecsec@who.int. Próximamente se ofrecerán más detalles.

La reunión es en formato híbrido; la participación presencial es restringida.

Los materiales para esta reunión, como el proyecto de agenda, la lista provisional de participantes y los documentos de referencia, estarán disponibles más adelante.

Fuente: World Health Organization. Disponible en https://n9.cl/j93fa

Competencias de los trabajadores involucrados en la preparación y respuesta frente a las emergencias de salud y desastres

El objetivo del seminario web es analizar las capacidades de los trabajadores de salud para la respuesta a emergencias y desastres en la Región de las Américas.

Considerando la relevancia del tema, en este seminario web se presentará la propuesta de competencias esenciales para enfrentar emergencias y desastres en el ámbito de la salud. Esta actividad es organizada conjuntamente por la Unidad de Recursos Humanos para la Salud del Departamento de Sistemas y Servicios de Salud, y el Departamento de Emergencias de Salud de la OPS.

9 de mayo de 2025

11:00 a.m. a 12:30 p.m. *Eastern Daylight Time* (EDT)

Interpretación simultánea del español al francés, inglés y portugués.

Para el Registro

https://paho-org.zoom.us/webinar/register/WN_idqQCHAXTFqN5WucYZzKaw#/registration

La Región de las Américas ocupa el segundo lugar después de Asia en términos de impacto de desastres. Casi el 21% de todos los desastres en el mundo entre 2013 y 2018 se produjeron en la Región de las Américas, lo que provocó 141 millones de víctimas y más de 10.000 muertes.

Los países de la Región enfrentan una escasez de personal sanitario, una distribución inequitativa y una falta de adecuación con respecto a las necesidades y las competencias, lo que se suma a la falta de formación adecuada en materia de preparación, prevención y respuesta a emergencias y desastres.

El personal de salud desempeña un papel fundamental en la gestión de la respuesta ante emergencias y desastre, ya que trabaja en estrecha colaboración con las comunidades y, por tanto, cerca de los potenciales eventos. Los profesionales de la salud son trabajadores de primera línea en condiciones estables y más aún durante situaciones de emergencia y crisis, prestando servicio tanto en entornos prehospitalarios como hospitalarios. Una gestión adecuada de la respuesta a emergencias requiere que la fuerza de trabajo en salud cuente con las competencias adecuadas.

Fuente: Organización Panamericana de la Salud. Disponible en https://n9.cl/kpjzax

Reunión del Comité Asesor de la OMS para el Desarrollo de Productos para Vacunas 2025

6-9 de octubre de 2025.

Ginebra, Suiza.

El Comité Asesor de la OMS para el Desarrollo de Productos para Vacunas (PDVAC) proporciona asesoramiento externo a la OMS en relación con patógenos prioritarios para enfermedades infecciosas, enfoques de desarrollo de vacunas y anticuerpos monoclonales asociados, y tecnologías de fabricación y administración relacionadas. Su cometido incluye la priorización de patógenos objetivo para el desarrollo de vacunas y/o anticuerpos monoclonales y plataformas tecnológicas, además de supervisar el desarrollo de características preferentes de producto (CPP), hojas de ruta técnicas y de I+D, evaluaciones completas del valor de las vacunas y consultas sobre las vías de desarrollo de productos.

La reunión de 2025 se celebrará del 6 al 8 de octubre (reunión abierta) y el 9 de octubre (reunión cerrada).

Fuente: World Health Organization. Disponible en https://n9.cl/l8d0ql

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:

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COVID-19 Vaccines.

[No authors listed]2025 Apr 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–.PMID: 33355732

Maternal Immunization.

Cho HK, Frivold C, Chu HY.J Infect Dis. 2025 Apr 15;231(4):830-836. doi: 10.1093/infdis/jiae509.PMID: 39432732

Viral Hepatitis.

Neuhoff BKS.Clin Obstet Gynecol. 2025 Apr 18. doi: 10.1097/GRF.0000000000000938. Online ahead of print.PMID: 40247447

Modulation of lipid nanoparticle-formulated plasmid DNA drives innate immune activation promoting adaptive immunity.

Tursi NJ, Tiwari S, Bedanova N, Kannan T, Parzych E, Okba N, Liaw K, Sárközy A, Livingston C, Trullen MI, Gary EN, Vadovics M, Laenger N, Londregan J, Khan MS, Omo-Lamai S, Muramatsu H, Blatney K, Hojecki C, Machado V, Maricic I, Smith TRF, Humeau LM, Patel A, Kossenkov A, Brenner JS, Allman D, Krammer F, Pardi N, Weiner DB.Cell Rep Med. 2025 Apr 15;6(4):102035. doi: 10.1016/j.xcrm.2025.102035. Epub 2025 Mar 21.PMID: 40120578

Plant-made trained immunity-based vaccines: Beyond one approach.

Monreal-Escalante E, Angulo M, Ramos-Vega A, Trujillo E, Angulo C.Int J Pharm. 2025 Apr 30;675:125572. doi: 10.1016/j.ijpharm.2025.125572. Epub 2025 Apr 7.PMID: 40204041

Methods to evaluate the performance of a multicomponent meningococcal serogroup B vaccine.

Borrow R, Tomasi Cont L, Toneatto D, Bambini S, Bobde S, Sohn W-Y, Biolchi A, Masignani V, Beernink PT, Lattanzi M.mSphere. 2025 Apr 29;10(4):e0089824. doi: 10.1128/msphere.00898-24. Epub 2025 Apr 8.PMID: 40197090

Lyme borreliosis vaccine VLA15 tested safe and immunogenic in children and adolescents.

Hajdusek O, Perner J.Lancet Infect Dis. 2025 Apr 25:S1473-3099(25)00160-4. doi: 10.1016/S1473-3099(25)00160-4. Online ahead of print.PMID: 40294610

Corrigendum to The origin of vaccine nationalism [Vaccine 51 (2025) 126897].

Shao Q.Vaccine. 2025 Apr 19;53:126935. doi: 10.1016/j.vaccine.2025.126935. Epub 2025 Mar 1.PMID: 40023903

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

Judah G.BMJ Qual Saf. 2025 Apr 17;34(5):291-294. doi: 10.1136/bmjqs-2024-018245.PMID: 40118517

Mucosal immunotherapy targeting APC in lung disease.

Liu Y, Chen Z, Cheng H, Zheng R, Huang W.J Inflamm (Lond). 2025 Apr 14;22(1):15. doi: 10.1186/s12950-025-00432-2.PMID: 40229816

Reflections on the Successes of Pediatric Vaccines.

Edwards KM.JAMA. 2025 Apr 15;333(15):1287-1288. doi: 10.1001/jama.2025.0865.PMID: 39913265

Less reactogenic whole-cell pertussis vaccine confers protection from Bordetella pertussis infection.

Škopová K, Holubová J, Bočková B, Slivenecká E, Santos de Barros JM, Staněk O, Šebo P.mSphere. 2025 Apr 29;10(4):e0063924. doi: 10.1128/msphere.00639-24. Epub 2025 Mar 12.PMID: 40071951

CpG-Adjuvanted Virus-like Particle Vaccine Induces Protective Immunity Against Leishmania donovani Infection.

Yoon KW, Chu KB, Eom GD, Mao J, Moon EK, Kim SS, Quan FS.J Infect Dis. 2025 Apr 15;231(4):998-1007. doi: 10.1093/infdis/jiae526.PMID: 39447003

Role of NLRP3 inflammasome in nanoparticle adjuvant-mediated immune response.

Ahmed M, Kurungottu P, Swetha K, Atla S, Ashok N, Nagamalleswari E, Bonam SR, Sahu BD, Kurapati R.Biomater Sci. 2025 Apr 29;13(9):2164-2178. doi: 10.1039/d4bm00439f.PMID: 38867716

Global burden of vaccine-associated uveitis and their related vaccines, 1967-2023.

Oh J, Park S, Park J, Jo H, Lee H, Udeh R, Rahmati M, Yang JM, Lee JY, Yon DK.Br J Ophthalmol. 2025 Apr 22;109(5):632-636. doi: 10.1136/bjo-2024-325985.PMID: 39424330

Vaccine-Induced Annular Atrophic Lichen Planus.

Perz C, Chittoor J, Grenier L.Mil Med. 2025 Apr 23;190(5-6):e1283-e1287. doi: 10.1093/milmed/usaf032.PMID: 39879225

COVID-19 Vaccine Literacy Among Black Pregnant and Postpartum Women in the USA.

Olorunsaiye CZ, Degge HM, Osborne A, Gordon DN.J Racial Ethn Health Disparities. 2025 Apr 29. doi: 10.1007/s40615-025-02430-9. Online ahead of print.PMID: 40299304

The microbiological characteristics and diagnosis of Streptococcus pneumoniae infection in the conjugate vaccine era.

Chen CH, Chen CL, Su LH, Chen CJ, Tsai MH, Chiu CH.Hum Vaccin Immunother. 2025 Dec;21(1):2497611. doi: 10.1080/21645515.2025.2497611. Epub 2025 Apr 27.PMID: 40289536

Vaccination strategies for solid organ transplant candidates and recipients: insights and recommendations.

Radcliffe C, Kotton CN.Expert Rev Vaccines. 2025 Dec;24(1):313-323. doi: 10.1080/14760584.2025.2489659. Epub 2025 Apr 12.PMID: 40184037

Evaluation of efficacy and effectiveness across the pneumococcal conjugate vaccine era.

LaFon DC.Hum Vaccin Immunother. 2025 Dec;21(1):2491855. doi: 10.1080/21645515.2025.2491855. Epub 2025 Apr 11.PMID: 40214660

"If I know about it of course I would give my son and daughter", barriers to and enablers of accessing human papillomavirus vaccination among women from refugee and asylum-seeking backgrounds resettling in Melbourne, Australia - A qualitative study.

Davidson N, Fisher J.Vaccine. 2025 Apr 19;53:127064. doi: 10.1016/j.vaccine.2025.127064. Epub 2025 Apr 5.PMID: 40184636

Safety and Immunogenicity of SARS-CoV-2 Spike Receptor-Binding Domain and N-Terminal Domain mRNA Vaccine.

Chalkias S, Pragalos A, Akinsola A, Berman G, Ampajwala M, Meyer J, Schoch L, Zhou W, Paila YD, Deng W, Feng J, de Windt E, Edwards D, Miller J, Das R.J Infect Dis. 2025 Apr 15;231(4):e754-e763. doi: 10.1093/infdis/jiaf022.PMID: 39792478

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

Nakao R, Yamaguchi T, Shibasaki H, Saeki J, Takahashi A, Tominaga R, Abe K, Akeda Y, Nakagawa-Nakamura T, Nishino T, Ishihara K, Jinno-Oue A, Inoue S.mSphere. 2025 Apr 29;10(4):e0103324. doi: 10.1128/msphere.01033-24. Epub 2025 Mar 18.PMID: 40099899

TAK-003: development of a tetravalent dengue vaccine.

Sáez-Llorens X, DeAntonio R, Low JGH, Kosalaraksa P, Dean H, Sharma M, Tricou V, Biswal S.Expert Rev Vaccines. 2025 Dec;24(1):324-338. doi: 10.1080/14760584.2025.2490295. Epub 2025 Apr 25.PMID: 40207772

Corrigendum to "Detection of rotavirus before and after monovalent rotavirus vaccine introduction and vaccine effectiveness among children in mainland tanzania" [Vaccine 36(47) (2018 Nov 12) 7149-7156].

Jani B, Hokororo A, Mchomvu J, Cortese MM, Kamugisha, Mujuni D, Kallovya D, Parashar UD, Mwenda JM, Lyimo D; Tanzania Rotavirus Surveillance Teams.Vaccine. 2025 Apr 19;53:127103. doi: 10.1016/j.vaccine.2025.127103. Epub 2025 Apr 11.PMID: 40209630

The social influence of the corrections of vaccine misinformation on social media.

Shanker A, Vlaev I.Vaccine. 2025 Apr 28;56:127177. doi: 10.1016/j.vaccine.2025.127177. Online ahead of print.PMID: 40300437

ALVAC-prime and monomeric gp120 protein boost induces distinct HIV-1 specific humoral and cellular responses compared with adenovirus-prime and trimeric gp140 protein boost.

Fisher LH, Lazarus E, Yu C, Moodie Z, Stieh DJ, Yates N, Zhang L, Sawant S, De Rosa SC, Cohen KW, Morris D, Grant S, Randhawa A, Miner MD, Hendriks J, Wegmann F, Gill KM, Laher F, Bekker LG, Gray GE,

Corey L, McElrath MJ, Martin T, Gilbert PB, Tomaras G, Walsh SR, Baden LR; HVTN 100, HVTN 117/HPX2004 study teams.PLOS Glob Public Health. 2025 Apr 11;5(4):e0004250. doi: 10.1371/journal.pgph.0004250. eCollection 2025.PMID: 40215224

Early-life gut microbiome associates with positive vaccine take and shedding in neonatal schedule of the human neonatal rotavirus vaccine RV3-BB.

Wagner J, Handley A, Donato CM, Lyons EA, Pavlic D, Ong DS, Bonnici R, Bogdanovic-Sakran N, Parker EPK, Bronowski C, Thobari JA, Satria CD, Nirwati H, Witte D, Jere KC, Mpakiza A, Watts E, Turner A, Boniface K, Mandolo J, Justice F, Bar-Zeev N, Iturriza-Gomara M, Buttery JP, Cunliffe NA, Soenarto Y, Bines JE.Nat Commun. 2025 Apr 11;16(1):3432. doi: 10.1038/s41467-025-58632-6.PMID: 40210877

COVID- 19 vaccine uptake and its determinants in Cameroon: a systematic review and meta-analysis (2021-2024).

Cheuyem FZL, Amani A, Achangwa C, Ajong BN, Minkandi CA, Zeh MMMK, Ntsek LLE, Essomba JP, Jiogue RC, Ndagijimana O, Nchanji NE, Danwang C.BMC Infect Dis. 2025 Apr 15;25(1):525. doi: 10.1186/s12879-025-10946-y.PMID: 40234831

Subtractive proteomics and reverse-vaccinology approaches for novel drug targets and designing a chimeric vaccine against Ruminococcus gnavus strain RJX1120.

Dingding H, Muhammad S, Manzoor I, Ghaffar SA, Alodaini HA, Moubayed NM, Hatamleh AA, Songxiao X.Front Immunol. 2025 Apr 14;16:1555741. doi: 10.3389/fimmu.2025.1555741. eCollection 2025.PMID: 40297578

Vaccine hesitancy in the vaccination of children in Brazil.

França AP, Domingues CMAS, Domingues RAS, Barata RB, da Glória Teixeira M, Guibu IA, de Moraes JC.Vaccine. 2025 Apr 19;53:126905. doi: 10.1016/j.vaccine.2025.126905. Epub 2025 Mar 2.PMID: 40031088

Erratum to "Predicted impact of HPV vaccination and primary HPV screening on precancer treatment rates and adverse pregnancy outcomes in Australia 2010-2070: Modelling in a high income, high vaccination coverage country with HPV-based cervical screening" [Vaccine 54 (2025) 126986].

Yuill S, Hall MT, Caruana M, Lui G, Velentzis LS, Smith MA, Wrede CD, Bateson D, Canfell K.Vaccine. 2025 Apr 19;53:127079. doi: 10.1016/j.vaccine.2025.127079. Epub 2025 Apr 9.PMID: 40203590

The saponin monophosphoryl lipid A nanoparticle adjuvant induces dose-dependent HIV vaccine responses in nonhuman primates.

Ramezani-Rad P, Marina-Zárate E, Maiorino L, Myers A, Kaczmarek Michaels K, Pires IS, Bloom NI, Melo MB, Lemnios AA, Lopez PG, Cottrell CA, Burton I, Groschel B, Pradhan A, Stiegler G, Budai M, Kumar D, Pallerla S, Sayeed E, Sagar SL, Kasturi SP, Van Rompay KK, Hangartner L, Wagner A, Burton DR, Schief WR, Crotty S, Irvine DJ.J Clin Invest. 2025 Mar 4;135(8):e185292. doi: 10.1172/JCI185292. eCollection 2025 Apr 15.PMID: 40036068

Vaccine refusal and hesitancy in Spain: an online cross-sectional questionnaire.

Huguet-Feixa A, Artigues-Barberà E, Sol J, Gomez-Arbones X, Godoy P, Bravo MO.BMC Prim Care. 2025 Apr 28;26(1):132. doi: 10.1186/s12875-025-02820-2.PMID: 40295962

A fresh look at varicella vaccination.

Gershon AA, Gershon MD.Hum Vaccin Immunother. 2025 Dec;21(1):2488099. doi: 10.1080/21645515.2025.2488099. Epub 2025 Apr 15.PMID: 40231570

Corrigendum to "Antibody persistence in Chinese toddlers at 1 year and 2 years after two different 4-dose schedules of a novel 13-valent pneumococcal conjugate vaccine (PCV13-TT)" [Vaccine 49 (7) (2025) 126815].

Ye Q, Li H, Xie Z, Gao X, Yuan L, Chen J, Fan H, Yan X, Tao S, Yang Y, Yue J, Shi J, Lin J, Jiang Z, Hu R, Shi L, Huang Z.Vaccine. 2025 Apr 13;54:127125. doi: 10.1016/j.vaccine.2025.127125. Online ahead of print.PMID: 40228436

Development of a Novel Pan-Species Multi-Epitope Vaccine (PS-MEV) Targeting Nine Staphylococcus Species to Combat Antibiotic Resistance.

Yaseen AR, Suleman M, Habib M, Arshad T, Fatima M, Arif A, Rasool HS.Probiotics Antimicrob Proteins. 2025 Apr 29. doi: 10.1007/s12602-025-10550-1. Online ahead of print.PMID: 40301233

Chikungunya virus virus-like particle vaccine safety and immunogenicity in adolescents and adults in the USA: a phase 3, randomised, double-blind, placebo-controlled trial.

Richardson JS, Anderson DM, Mendy J, Tindale LC, Muhammad S, Loreth T, Tredo SR, Warfield KL, Ramanathan R, Caso JT, Jenkins VA, Ajiboye P, Bedell L; EBSI-CV-317-004 Study Group.Lancet. 2025 Apr 19;405(10487):1343-1352. doi: 10.1016/S0140-6736(25)00345-9. Epub 2025 Mar 27.PMID: 40158526

Synthesis of PSI Oligosaccharide for the Development of Total Synthetic Vaccine against Clostridium difficile.

Lo HJ, Mettu R, Chen CY, Li ST, Wu CY.J Org Chem. 2025 Apr 25;90(16):5586-5613. doi: 10.1021/acs.joc.5c00290. Epub 2025 Apr 11.PMID: 40214657

Corrigendum to the article titled, "Attitudes and beliefs about vaccination among adults in the United States: A real-world, cross-sectional, web-based survey study" [Vaccine 50 (2025) 126807].

Eiden AL, Mackie DS, Modi K, Drakeley S, Mercadante AR, Bhatti A, DiFranzo A.Vaccine. 2025 Apr 19;53:127053. doi: 10.1016/j.vaccine.2025.127053. Epub 2025 Apr 3.PMID: 40184640

A novel tetravalent influenza vaccine based on one chimpanzee adenoviral vector.

Niu Y, Yan Y, Hu Y, Yang X, Shi H, Zhou P, Zhu C, Xing M, Zhou D, Wang X.Vaccine. 2025 Apr 19;53:126959. doi: 10.1016/j.vaccine.2025.126959. Epub 2025 Mar 1.PMID: 40023902

In Situ Cancer Vaccines: Redefining Immune Activation in the Tumor Microenvironment.

Giram P, Md Mahabubur Rahman K, Aqel O, You Y.ACS Biomater Sci Eng. 2025 Apr 14. doi: 10.1021/acsbiomaterials.5c00121. Online ahead of print.PMID: 40223683

Patterns and Correlates of Utilization of Mental Health Services, Distress, and Flourishing Among Academic Medical Trainees and Faculty Throughout the COVID Pandemic and Beyond.

Soller M, Moffit M, Kesserwani C, Ladd B.Acad Psychiatry. 2025 Apr 14. doi: 10.1007/s40596-025-02139-1. Online ahead of print.PMID: 40229637

Efficacy and Durability of Immune Response After Receipt of Hepatitis A Vaccine in People With Human Immunodeficiency Virus.

Kazzi B, Naji A, Dib SM, Khalil L, Tandon Wimalasana S, Saint-Victor D, Ofotokun I, Rouphael N.Open Forum Infect Dis. 2025 Apr 11;12(4):ofaf143. doi: 10.1093/ofid/ofaf143. eCollection 2025 Apr.PMID: 40225827

Vaccinome Landscape in Nearly 620 000 Patients With Diabetes.

D'Addio F, Lazzaroni E, Lunati ME, Preziosi G, Ercolanoni M, Turola G, Marrocu C, Cicconi G, Sharma S, Scarioni S, Montefusco L, Pastore I, Morpurgo PS, Rossi A, Gandolfi A, Tinari C, Rossi G, Ben Nasr M, Loretelli C, Fiorina RM, Grassa B, Terranova R, Bucciarelli L, Berra C, Cereda D, Zuccotti G, Borriello CR, Fiorina P.J Clin Endocrinol Metab. 2025 Apr 22;110(5):e1590-e1597. doi: 10.1210/clinem/dgae476.PMID: 39040010

Global and regional estimates of vaccine-associated herpes zoster and their related vaccines from 1969 to 2023.

Jeong J, Jo H, Son Y, Park J, Oh J, Lee S, Jeong YD, Lee K, Kim HJ, Lee H, Kim S, Yim Y, Rahmati M, Kang J, Udeh R, Pizzol D, Smith L, Hwang J, Yon DK.Sci Rep. 2025 Apr 17;15(1):13285. doi: 10.1038/s41598-025-98106-9.PMID: 40247100

Insights into the mechanisms of apoptosis and pathogenesis in enterovirus 71 infections: A review.

Wu JM, Wang CS, Yu XW.Medicine (Baltimore). 2025 Apr 11;104(15):e42183. doi: 10.1097/MD.0000000000042183.PMID: 40228262

Altered baseline immunological state and impaired immune response to SARS-CoV-2 mRNA vaccination in lung transplant recipients.

Hu M, Oliveira APBN, Fang Z, Feng Y, Miranda M, Kowli S, Arunachalam PS, Vasudevan G, Hui HS, Grifoni A, Sette A, Litvack M, Rouphael N, Suthar MS, Ji X, Maecker HT, Hagan T, Dhillon G, Nicolls MR, Pulendran B.Cell Rep Med. 2025 Apr 15;6(4):102050. doi: 10.1016/j.xcrm.2025.102050. Epub 2025 Apr 4.PMID: 40187358

What's Old Is New Again: Measles.

Li CN, Kaplan SL, Edwards KM, Marshall GS, Parker S, Healy CM.Pediatrics. 2025 Apr 11. doi: 10.1542/peds.2025-071332. Online ahead of print.PMID: 40211105

Immunogenicity of a foot-and-mouth disease (FMD) vaccine against serotypes O, A, SAT-2, and Asia-1 in the Middle East and many parts of Africa, Southeast Asia and Europe.

Wasfy M, Bazid AH, Nayel M, Ata EB, Elfeil WK, Attia M, Elsayed M.Virol J. 2025 Apr 11;22(1):98. doi: 10.1186/s12985-025-02698-7.PMID: 40217325

Regional cooperation on pandemic preparedness and vaccine equity from an economic, regulatory and legal perspective.

Chan MXJ, Wouters OJ, Chan HY, Terblanche P, Premsri N, Kim JH, Lim JCW, Tan-Koi WC, Jit M.Vaccine. 2025 Apr 19;53:127107. doi: 10.1016/j.vaccine.2025.127107. Epub 2025 Apr 10.PMID: 40221388

Corrigendum to "Immunogenicity, safety and inter-lot consistency of a meningococcal conjugate vaccine (MenACYW-TT) in adolescents and adults: A Phase III randomized study" [Vaccine (38) (2020) 5194-5201].

Dhingra MS, Peterson J, Hedrick J, Pan J, Neveu D, Jordanov E.Vaccine. 2025 Apr 11;52:126912. doi: 10.1016/j.vaccine.2025.126912. Epub 2025 Feb 24.PMID: 39999539

Determinants of seasonal influenza vaccination uptake, intention and recommendations among Lebanese physicians.

Farah Z, Bazant ES, Basha I, Saleh N, Moen A, Ghosn N, Maison P.Vaccine. 2025 Apr 11;52:126890. doi: 10.1016/j.vaccine.2025.126890. Epub 2025 Feb 21.PMID: 39985969

An LNP-mRNA vaccine protects fish against rhabdovirus infection.

Ayad C, Porter D, Lambert E, Libeau P, Coiffier C, Ginet V, Collet B, Levraud JP, Boudinot P, Verrier B.Vaccine. 2025 Apr 19;53:126957. doi: 10.1016/j.vaccine.2025.126957. Epub 2025 Mar 2.PMID: 40031086

The effects of human papillomavirus vaccination in Japan.

Choi W, Shim E.Hum Vaccin Immunother. 2025 Dec;21(1):2489301. doi: 10.1080/21645515.2025.2489301. Epub 2025 Apr 11.PMID: 40212002

Monosaccharide-Based Synthetic TLR4 Agonist Enhances Vaccine Efficacy against Pseudomonas aeruginosa Challenge.

Sainz-Mejías M, Ma C, Hou Y, Jurado-Martin I, Romerio A, Franco AR, Shaik MM, Tomás-Cortázar J, Peri F, McClean S.ACS Infect Dis. 2025 Apr 11;11(4):894-904. doi: 10.1021/acsinfecdis.4c00932. Epub 2025 Mar 24.PMID: 40129118

Safety, immunogenicity and immune persistence of a lyophilized purified human diploid cells rabies vaccine following rabies PEP regimen Essen and Zagreb: A randomized, blinded controlled phase 3 trial in healthy participants aged 10-60 years old.

Li G, Cao S, Xu B, Hu J, Zhang L, Shi L, Zhao D, Li Y, Liu Y, Liang Q, Wu X.Vaccine. 2025 Apr 19;53:127082. doi: 10.1016/j.vaccine.2025.127082. Epub 2025 Apr 5.PMID: 40188565

Mucosal and Systemic Antibody Responses After Boosting With a Bivalent Messenger RNA Severe Acute Respiratory Syndrome Coronavirus 2 Vaccine.

Atmar RL, Lyke KE, Posavad CM, Deming ME, Brady RC, Dobrzynski D, Edupuganti S, Mulligan MJ, Rupp RE, Rostad CA, Jackson LA, Martin JM, Shriver MC, Rajakumar K, Coler RN, El Sahly HM, Kottkamp AC,

Branche AR, Frenck RW, Johnston C, Babu TM, Bäcker M, Archer JI, Crandon S, Nakamura A, Nayak SU, Szydlo D, Dominguez Islas CP, Brown ER, O'Connell SE, Montefiori DC, Eaton A, Neuzil KM, Stephens DS, Beigel JH, Pasetti M, Roberts PC.J Infect Dis. 2025 Apr 29:jiaf176. doi: 10.1093/infdis/jiaf176. Online ahead of print.PMID: 40298376

Safety and immunogenicity of an inactivated recombinant Newcastle disease virus vaccine expressing SARS-CoV-2 spike: Results of a randomized vaccine-controlled phase I ADAPTCOV trial in Brazil.

Peixoto de Miranda ÉJF, Calado RT, Boulos FC, de Sousa Moreira JA, Machado FF, Almeida MAALDS, Da Rocha MCO, Infante V, Mercer LD, Hjorth R, Scharf R, White J, Polyak C, Raghunandan R, García-Sastre A, Sun W, Palese P, Krammer F, Innis B, Pereira CG, Kallas EG.Vaccine. 2025 Apr 11;52:126680. doi: 10.1016/j.vaccine.2024.126680. Epub 2025 Mar 3.PMID: 40037239

Attitudes of California school personnel on potential COVID-19 vaccine mandates and state law SB277 to remove nonmedical vaccine exemptions.

Dudley MZ, Zapf AJ, Delamater P, Proveaux TM, Schuh HB, Buttenheim AM, Schwartz JL, Klein NP, Goddard K, Patel KM, Omer SB, Salmon DA.Vaccine. 2025 Apr 11;52:126888. doi: 10.1016/j.vaccine.2025.126888. Epub 2025 Feb 21.PMID: 39985971

Detection of Live Attenuated Measles Virus in the Respiratory Tract Following Subcutaneous Measles-Mumps-Rubella Vaccination.

Watkins TA, Brockhurst JK, Germain G, Griffin DE, Foxman EF.J Infect Dis. 2025 Apr 15;231(4):1089-1093. doi: 10.1093/infdis/jiae537.PMID: 39504437

Amplifying the Immune Activity of Metal Ions through Metal-Phenolic Complexation.

Wang Z, Chen J, Wang T, De Rose R, Cortez-Jugo C, Caruso F.ACS Nano. 2025 Apr 22;19(15):15055-15068. doi: 10.1021/acsnano.5c01842. Epub 2025 Apr 10.PMID: 40211450

A novel IgG-Fc-Fused multiepitope vaccine against Brucella: robust immunogenicity.

Wu A, Zhang Y, Liu C, Zhumanov K, He T, Yan K, Li H, Fu S, Li X, Zhang W, Meng C, Zhang C, Sheng J, Ma Z, Xu M, Zhang J, Yi J, Wang Y.Microb Cell Fact. 2025 Apr 15;24(1):84. doi: 10.1186/s12934-025-02713-0.PMID: 40229797

Feasibility of cohort event monitoring and assessment of reactogenicity and adverse events among a cohort of AstraZeneca and Moderna COVID-19 vaccine recipients in Nigeria, 2021.

Bolu O, Alo OD, Iwara E, Longley AT, Hadley I, Ogar CK, Ezekwe C, Elemuwa U, Adedokun O, Ramadhani HO, Ohakanu S, Ortiz N, Antonza G, Abubakar A, Asekun A, Fraden B, Chen R, Nordenberg D, Adebajo S, Adeyeye MC, Stafford KA; Nigeria COVID-19 Vaccine Cohort Event Monitoring Implementation Group.Vaccine. 2025 Apr 11;52:126907. doi: 10.1016/j.vaccine.2025.126907. Epub 2025 Mar 12.PMID: 40073670

Assessing the geographic and socioeconomic determinants of vaccine coverage in Ethiopia: A spatial and multistage analysis at the district level.

Forzy T, Tesfaye L, Getnet F, Misganew A, Lamma SW, Worku A, Memirie ST, Zelalem M, Tefera YL, Dangisso MH, Verguet S.Vaccine. 2025 Apr 19;53:126834. doi: 10.1016/j.vaccine.2025.126834. Epub 2025 Mar 7.PMID: 40056895

Development of a Novel Multi-Epitope Vaccine Against Streptococcus anginosus Infection via Reverse Vaccinology Approach.

Xu L, Xie N, Liu Y, Tang H, Li T, Peng J, Li R.Immunology. 2025 Apr 23. doi: 10.1111/imm.13936. Online ahead of print.PMID: 40267989

Anticipated impact of novel adult-specific pneumococcal conjugate vaccine.

Joshi R, Ayele HT, Johnson KD, Velentgas P, Platt H, Saddier P.Vaccine. 2025 Apr 19;53:127080. doi: 10.1016/j.vaccine.2025.127080. Epub 2025 Apr 13.PMID: 40220708

Early effectiveness of the BNT162b2 KP.2 vaccine against COVID-19 in the US Veterans Affairs Healthcare System.

Appaneal HJ, Lopes VV, Puzniak L, Zasowski EJ, Jodar L, McLaughlin JM, Caffrey AR.Nat Commun. 2025 Apr 29;16(1):4033. doi: 10.1038/s41467-025-59344-7.PMID: 40301395

Evaluation of novel single-dose vaccine candidates against gonadotropin-releasing hormone (GnRH) in mice.

Shalash AO, Wang W, Xia Y, Hussein WM, Bashiri S, D'Occhio MJ, Stephenson RJ, Skwarczynski M, Toth I.Vaccine. 2025 Apr 19;53:127092. doi: 10.1016/j.vaccine.2025.127092. Epub 2025 Apr 4.PMID: 40186995

From Wuhan to Omicron K.P2 strain: A comprehensive review of SARS-CoV-2 phylogeny and public health implications of the latest booster vaccine.

Akingbola A, Adewole O, Adegbesan A, Peters F, Odukoya T, Aremu O, Adeleke O, Idris A, Owolabi A, Aiyenuro A.Hum Vaccin Immunother. 2025 Dec;21(1):2485840. doi: 10.1080/21645515.2025.2485840. Epub 2025 Apr 11.PMID: 40214651

Novel tuberculosis vaccines based on TB10.4 and Ag85B: State-of-art and advocacy for good practices.

Tengattini S, Bavaro T, Rinaldi F, Temporini C, Pollegioni L, Terreni M, Piubelli L.Vaccine. 2025 Apr 19;53:126932. doi: 10.1016/j.vaccine.2025.126932. Epub 2025 Mar 2.PMID: 40031085

Microalgae-based vaccines for aquaculture.

Chen H, Jiang J, Ledesma-Amaro R.Trends Biotechnol. 2025 Apr 22:S0167-7799(25)00128-3. doi: 10.1016/j.tibtech.2025.04.001. Online ahead of print.PMID: 40268646

Self-Amplifying RNA: Advantages and Challenges of a Versatile Platform for Vaccine Development.

Vallet T, Vignuzzi M.Viruses. 2025 Apr 14;17(4):566. doi: 10.3390/v17040566.PMID: 40285008

Prediction of a novel synthetic peptide vaccine against tuberculosis and validation of its immunogenicity.

Zhang D, Wang D, Jiang S, Wan Y, Zhao Y, Dong W, Li X, Fu L, Zhang W.Int Immunopharmacol. 2025 Apr 24;153:114531. doi: 10.1016/j.intimp.2025.114531. Epub 2025 Mar 27.PMID: 40154176

Human papilloma virus vaccine induced Kikuchi-Fujimoto disease: A case report.

Shadrach BJ, Raju LP, Bibi A, Deokar K, Gaikwad P, Doshi J.Lung India. 2025 May 1;42(3):256-259. doi: 10.4103/lungindia.lungindia_557_24. Epub 2025 Apr 29.PMID: 40296399

Evaluating concurrency and gaps between self-report and vaccine card data for COVID-19 vaccination.

Stoner MCD, Michaels J, Stocks JB, Mancuso N, Soberano Z, Browne E, Bond CL, Yigit I, Maragh-Bass AC, Pettifor AE, Muessig KE, Comello MLG, Larsen MA, Hightow-Weidman LB, Budhwani H.Vaccine. 2025 Apr 16;54:127136. doi: 10.1016/j.vaccine.2025.127136. Online ahead of print.PMID: 40245767

Monkeypox Virus Infection Stimulates a More Robust and Durable Neutralizing Antibody Response Compared to Modified Vaccinia Virus Ankara Vaccination.

Selverian CN, Monticelli SR, Jaleta YM, Lasso G, DeMouth ME, Meola A, Berrigan J, Batchelor TG, Battini L, Guardado-Calvo P, Herbert AS, Chandran K, Meyerowitz E, Miller EH.J Infect Dis. 2025 Apr 15;231(4):1069-1073. doi: 10.1093/infdis/jiae515.PMID: 39422181

Reasons for COVID-19 vaccination late in the pandemic: A qualitative study.

Fisher KA, Goldthwait L, Desrochers O, Zemel M, Saphirak C, Malin J, Stone RT, Singh S, Crawford S, Mazor KM.Vaccine. 2025 Apr 19;53:127084. doi: 10.1016/j.vaccine.2025.127084. Epub 2025 Apr 5.PMID: 40186993

PfRH5 vaccine; from the bench to the vial.

Ilani P, Nyarko PB, Camara A, Amenga-Etego LN, Aniweh Y.NPJ Vaccines. 2025 Apr 24;10(1):82. doi: 10.1038/s41541-025-01137-6.PMID: 40274841

Real-world effectiveness of influenza vaccination in preventing influenza and influenza-like illness in children.

Rigamonti V, Torri V, Morris SK, Ieva F, Giaquinto C, Donà D, Di Chiara C, Cantarutti A; CARICE study group.Vaccine. 2025 Apr 19;53:126946. doi: 10.1016/j.vaccine.2025.126946. Epub 2025 Feb 28.PMID: 40023131

Virus-like particle vaccine with authentic quaternary epitopes protects against Zika virus-induced viremia and testicular damage.

Abbo SR, Yan K, Geertsema C, Hick TAH, Altenburg JJ, Nowee G, van Toor C, van Lent JW, Nakayama E, Tang B, Metz SW, Bhowmik R, de Silva AM, Prow NA, Correia R, Alves PM, Roldão A, Martens DE, van Oers MM, Suhrbier A, Pijlman GP.J Virol. 2025 Apr 15;99(4):e0232224. doi: 10.1128/jvi.02322-24. Epub 2025 Feb 27.PMID: 40013767

Development of a plant-based vaccine against brucellosis: stable expression of Brucella abortus OMP25 in transgenic tobacco.

Qashqai M, Bertan E, Erisen S, Ozbek T, Vural-Korkut S.Transgenic Res. 2025 Apr 29;34(1):22. doi: 10.1007/s11248-025-00441-0.PMID: 40299164

Human papillomavirus vaccination at age 9 or 10 years to increase coverage - a narrative review of the literature, United States 2014-2024.

Brewer SK, Stefanos R, Murthy NC, Asif AF, Stokley S, Markowitz LE.Hum Vaccin Immunother. 2025 Dec;21(1):2480870. doi: 10.1080/21645515.2025.2480870. Epub 2025 Apr 14.PMID: 40228197

Effectiveness of BNT162b2 XBB.1.5 vaccine in immunocompetent adults using tokenization in two U.S. states.

Andersen KM, Allen KE, Nepal RM, Mateus JS, Yu T, Zhou A, Porter TM, Lopez SMC, Puzniak L, McLaughlin JM, McGrath LJ.Vaccine. 2025 Apr 11;52:126881. doi: 10.1016/j.vaccine.2025.126881. Epub 2025 Feb 22.PMID: 39987879

Development and validation of a clinical prediction tool for non-receipt of updated COVID-19 vaccines.

Bruxvoort KJ, Sy LS, Contreras R, Lewin B, Hong V, Qian L, Holmquist KJ, Han B, Xu S.Vaccine. 2025 Apr 19;53:127074. doi: 10.1016/j.vaccine.2025.127074. Epub 2025 Apr 11.PMID: 40215705

Differential Sensitivity to Interepitope Spacing in Mast Cells and B Cells Enables Design of Hypoallergenic Allergen Vaccine Immunogens.

Cossette BJ, Shen L, Bermudez A, Freire Haddad H, Shetty S, Sylvers J, Yuan F, Ke Y, Collier JH.ACS Nano. 2025 Apr 29;19(16):15371-15384. doi: 10.1021/acsnano.4c14507. Epub 2025 Apr 20.PMID: 40253609

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

Schweitzer K.JAMA. 2025 Apr 15;333(15):1278-1281. doi: 10.1001/jama.2025.2932.PMID: 40085106

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

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

Effectiveness and immunogenicity of SARS-CoV-2 booster vaccine in immunosuppressed systemic autoimmune disease patients: A prospective study.

Teles C, Borges A, Magalhães A, Barra C, Silva I, Tomé P, Crespo J, Paiva A, Santos L.Med Clin (Barc). 2025 Apr 11;164(12):106920. doi: 10.1016/j.medcli.2025.106920. Online ahead of print.PMID: 40220498 English, Spanish.

Community pharmacists' pneumococcal vaccine knowledge and perceived barriers to vaccination.

Davies A, Schreiber D, Carey C, Tucker SB, Goodman M, Love BL, Reeder G, Hastings TJ.Vaccine. 2025 Apr 19;53:126930. doi: 10.1016/j.vaccine.2025.126930. Epub 2025 Mar 1.PMID: 40023906

Young men with intellectual disabilities' perceptions of HPV and HPV vaccine: A qualitative study on how to communicate HPV vaccine information.

Carnegie E, Gray-Brunton C, Kennedy C, Pow J, Willis D, Whittaker A.Hum Vaccin Immunother. 2025 Dec;21(1):2491857. doi: 10.1080/21645515.2025.2491857. Epub 2025 Apr 21.PMID: 40259513

Self-Assembled Glycopeptide as a Biocompatible mRNA Vaccine Platform Elicits Robust Antitumor Immunity.

Zhou Y, Wu Y, Sun S, Wang W, Zhou S, Liu H, Guo Y, Hong S, Ding F, Cai H.ACS Nano. 2025 Apr 22;19(15):14727-14741. doi: 10.1021/acsnano.4c15187. Epub 2025 Apr 9.PMID: 40203215

COVID-19 vaccination integration, innovations and key populations: Results from a global survey.

Mathur I, Ruisch A, Conlin M, Oyatoye I, Griffiths U, Walker DG, Suharlim C.Vaccine. 2025 Apr 11;52:126863. doi: 10.1016/j.vaccine.2025.126863. Epub 2025 Feb 26.PMID: 40014981

Vaccination in pregnancy to protect the newborn.

Male V, Jones CE.Nat Rev Immunol. 2025 Apr 23. doi: 10.1038/s41577-025-01162-5. Online ahead of print.PMID: 40269273

Exploring TLR agonists as adjuvants for COVID-19 oral vaccines.

Félix P, Melo AA, Costa JP, Colaço M, Pereira D, Núñez J, de Almeida LP, Borges O.Vaccine. 2025 Apr 19;53:127078. doi: 10.1016/j.vaccine.2025.127078. Epub 2025 Apr 3.PMID: 40184639

Considering recombinant herpes zoster vaccine for fragile pediatric patients: A new opportunity.

Mollo A, Peri M, Lodi L, Gissi A, Lionetti P, Marrani E, Mastrolia MV, Tondo A, Tintori V, Sardi I, Indolfi G, Trapani S, Galli L, Venturini E, Astorino V, Azzari C, Ricci S.Vaccine. 2025 Apr 19;53:127072. doi: 10.1016/j.vaccine.2025.127072. Epub 2025 Apr 7.PMID: 40198934

Effect of the 13-valent pneumococcal conjugate vaccine on pneumococcal carriage in rural Gambia 10 years after its introduction: A population-based cross-sectional study.

Osei I, Mendy E, van Zandvoort K, Sarwar G, Nuredin IM, Bruce J, Barjo O, Molfa M, Salaudeen R, Greenwood B, Flasche S, Mackenzie GA.Vaccine. 2025 Apr 28;56:127181. doi: 10.1016/j.vaccine.2025.127181. Online ahead of print.PMID: 40300436

A randomized, open-label study on the effect of nipocalimab on vaccine responses in healthy participants.

Cossu M, Bobadilla Mendez C, Jackson A, Myshkin E, Liu G, Lam E, Beier UH, Weisel K, Scott B, Leu JH, Gao S, Dimitrova D.Hum Vaccin Immunother. 2025 Dec;21(1):2491269. doi: 10.1080/21645515.2025.2491269. Epub 2025 Apr 15.PMID: 40232701

COVID-19 vaccine decision-making and the role of institutions across the pandemic in UK Black African and Black Caribbean communities.

Shearn C, Postavaru GI, Hylton L, Morris H, Robertson N, Krockow EM.Vaccine. 2025 Apr 19;53:127071. doi: 10.1016/j.vaccine.2025.127071. Epub 2025 Apr 6.PMID: 40194488

Patterns and Predictors of COVID-19 Vaccine Uptake Among U.S. Active Duty Service Members, 2020-2022: Implications for Future Pandemics.

Sercy E, Stewart L, Craig-Kuhn MC, Stern C, Graham B, Michel A, Parmelee E, Pollett S, Burgess T, Tribble DR.Mil Med. 2025 Apr 23;190(5-6):1243-1252. doi: 10.1093/milmed/usaf004.PMID: 39797791

Serological Responses to Target Streptococcus pyogenes Vaccine Antigens in Patients With Proven Invasive beta-Hemolytic Streptococcal Infections.

Langworthy K, Taggart M, Smith R, Levy A, Knight DR, Hui S, Fulurija A, Morici M, Raby E, Manning L.J Infect Dis. 2025 Apr 15;231(4):913-920. doi: 10.1093/infdis/jiae496.PMID: 39383256

Development and evaluation of recombinant multi-epitopes vaccine against nervous necrosis virus.

Zhang C, Zhao WN, Liu XX, Song WY, Peng HH, Yang M, Li PF, Wei JQ, Zhou YC, Sun Y.Fish Shellfish Immunol. 2025 Apr 11;162:110332. doi: 10.1016/j.fsi.2025.110332. Online ahead of print.PMID: 40222691

Vaccine-Preventable Diseases in Pediatric Age Group in India: Recent Resurgence, Implications and Solutions.

Debnath A, Yadav A, Lahariya C.Indian J Pediatr. 2025 Apr 25. doi: 10.1007/s12098-025-05531-9. Online ahead of print.PMID: 40278999

Plasmid DNA-based reverse genetics as a platform for manufacturing of bluetongue vaccine.

Mlingo TAM, Theron J, Mokoena NB.J Virol. 2025 Apr 15;99(4):e0013925. doi: 10.1128/jvi.00139-25. Epub 2025 Mar 6.PMID: 40130823

Chimeric virus-like particles of nodavirus displaying M2e of human and avian influenza A viruses as a potential dual-use vaccine: Inducing a broader immune response and protecting mice against viral infections.

Fatimah MNN, Thian BYZ, Wong CL, Ong HK, Hussin H, Mariatulqabtiah AR, Ho KL, Omar AR, Tan WS.Vaccine. 2025 Apr 25;56:127165. doi: 10.1016/j.vaccine.2025.127165. Online ahead of print.PMID: 40286563

Childhood invasive pneumococcal disease and acute otitis media in Central Greece during 2005-2024 - A report at the doorstep of the new multivalent PCV era.

Syrogiannopoulos GA, Michoula AN, Moriondo M, Nieddu F, Syrogiannopoulou TG, Anthracopoulos MB, Petinaki E, Azzari C, Grivea IN.Vaccine. 2025 Apr 11;52:126765. doi: 10.1016/j.vaccine.2025.126765. Epub 2025 Mar 10.PMID: 40064582

Unveiling mismatch of RTS S AS01 and R21 Matrix M malaria vaccines haplotype among Ethiopian Plasmodium falciparum clinical isolates.

Mandefro A, Kebede AM, Katsvanga M, Cham F, Oriero E, Amambua-Ngwa A, Golassa L.Sci Rep. 2025 Apr 29;15(1):14985. doi: 10.1038/s41598-025-00140-0.PMID: 40301403

Comparative analysis of fourteen COVID-19 vaccine injury compensation systems and claim approval rates.

Chu CF, Chang TH, Ho JJ.Vaccine. 2025 Apr 11;52:126830. doi: 10.1016/j.vaccine.2025.126830. Epub 2025 Mar 3.PMID: 40037238

Development of intimin-enriched outer membrane vesicles (OMVs) as a vaccine to control intestinal carriage of Enterohemorrhagic Escherichia coli.

Garling A, Goursat C, Seguy C, Martin P, Goman A, Nougayrède JP, Oswald É, Auvray F, Branchu P.Vaccine. 2025 Apr 11;52:126899. doi: 10.1016/j.vaccine.2025.126899. Epub 2025 Feb 21.PMID: 39985970

Measuring (Mis)trust in the age of COVID-19: viewpoints of vaccine clinical trial participation among individuals living with sickle cell disease.

Abdallah K, Amini K, Ramirez HC, Keller M, Seddighi D, Baffoe-Bonnie MS, Thomas S, Bonham VL, Buscetta AJ.BMC Public Health. 2025 Apr 28;25(1):1568. doi: 10.1186/s12889-025-22731-2.PMID: 40295978

Dynamics of global emergency vaccine stockpiles: A systems analysis and application to cholera.

Guttieres D, Van Riet C, Vandaele N, Decouttere C.Vaccine. 2025 Apr 11;52:126889. doi: 10.1016/j.vaccine.2025.126889. Epub 2025 Feb 26.PMID: 40014984

Influenza A hemagglutinin virus-like particles confer protection against influenza B virus infection.

Mao J, Chu KB, Eom GD, Yoon KW, Heo SI, Kang HJ, Kim SS, Quan FS.Emerg Microbes Infect. 2025 Dec;14(1):2494702. doi: 10.1080/22221751.2025.2494702. Epub 2025 Apr 28.PMID: 40230200

Highly immunogenic DNA/LION nanocarrier vaccine potently activates lymph nodes inducing long-lasting immunity in macaques.

Karaliota S, Moussa M, Rosati M, Devasundaram S, Sengupta S, Goldfarbmuren KC, Burns R, Bear J, Stellas D, Urban EA, Deleage C, Khandhar AP, Erasmus J, Berglund P, Reed SG, Pavlakis GN, Felber BK.iScience. 2025 Mar 18;28(4):112232. doi: 10.1016/j.isci.2025.112232. eCollection 2025 Apr 18.PMID: 40230522

Prioritization and barriers of mpox vaccination uptake among gay, bisexual and other men who have sex with men in Taiwan: 2023 HEART survey.

Strong C, Joson P, Chu IY, Chuang TT, Wu HJ, Li CW, Huang P, Bourne A, Ku SW.Vaccine. 2025 Apr 19;53:127059. doi: 10.1016/j.vaccine.2025.127059. Epub 2025 Apr 1.PMID: 40174374

Boosting effect of high-dose influenza vaccination on innate immunity among elderly.

Bonduelle O, Delory T, Franco-Moscardini I, Ghidi M, Bennacer S, Wokam M, Lenormand M, Petrier M, Rogeaux O, de Bernard S, Alves K, Nourikyan J, Lina B; INFLUOMICS Study group; Combadiere B, Janssen C.JCI Insight. 2025 Mar 4;10(8):e184128. doi: 10.1172/jci.insight.184128. eCollection 2025 Apr 22.PMID: 40036077

Exploring vaccination attitudes in African communities in Canada: A mixed-methods study protocol.

Ezezika O, Pellitier Z, Muhimpundu S, Daboud C, Mengistu M, Olorunbiyi O, Hines C, Wondrad M, Kearon J, Okwei R, Anukam K, Alaazi D, Arku G.PLoS One. 2025 Apr 28;20(4):e0319584. doi: 10.1371/journal.pone.0319584. eCollection 2025.PMID: 40294002

Religious group membership and conspiracy beliefs influence vaccine uptake: Insights from 20 European countries.

Foran AM, Jetten J, Muldoon OT.Vaccine. 2025 Apr 19;53:127086. doi: 10.1016/j.vaccine.2025.127086. Epub 2025 Apr 2.PMID: 40179437

An African swine fever vaccine-like variant with multiple gene deletions caused reproductive failure in a Vietnamese breeding herd.

Nguyen TC, Bui NTT, Nguyen LT, Ngo TNT, Van Nguyen C, Nguyen LM, Nouhin J, Karlsson E, Padungtod P, Pamornchainavakul N, Kesdangsakonwut S, Thanawongnuwech R, Do DT.Sci Rep. 2025 Apr 28;15(1):14919. doi: 10.1038/s41598-025-95641-3.PMID: 40295549

Sow vaccination with a novel recombinant protein vaccine protects piglets against Streptococcus suis infection.

Frosth S, Reddick D, Righetti F, Bjerketorp J, Jacobsson K, Henriques-Normark B, Jacobson M, Guss B, Wood T, Frykberg L, Flock JI, Waller A.Vaccine. 2025 Apr 19;53:127077. doi: 10.1016/j.vaccine.2025.127077. Epub 2025 Apr 8.PMID: 40198933

Influenza vaccine effectiveness among primary and secondary school students in Shenzhen during the 2023/24 influenza season.

Jiang Y, Sun J, Huang F, Xie X, Wang X, Wu X, Jiang M, Sun Y, Liu H, Gu H, Lu Q, Chen X, Feng T, Fang S, Lu J, Shu Y.Emerg Microbes Infect. 2025 Dec;14(1):2490531. doi: 10.1080/22221751.2025.2490531. Epub 2025 Apr 24.PMID: 40192342

Synergistic Effects of Polycationic and Polyfluorinated Functionalities for Efficient Intracellular Protein Delivery.

Liu B, Gong S, Qiu J, Ejaz W, Thayumanavan S.Biomacromolecules. 2025 Apr 14;26(4):2413-2420. doi: 10.1021/acs.biomac.4c01795. Epub 2025 Feb 28.PMID: 40020198

Associations between parental vaccine hesitancy, religion-based vaccine hesitancy, and childhood full vaccination in a cross-sectional study in Aceh, Indonesia, 2023.

Jacovetty J, Wagner AL, Ichsan I, Yufika A, Menawati T, Indah R, Kairadini F, Koumpias AM, Harapan H.Vaccine. 2025 Apr 24;56:127154. doi: 10.1016/j.vaccine.2025.127154. Online ahead of print.PMID: 40279926

An antigen-less pro-vaccine for treating autoimmunity.

Zheng G, Oo TT, Janjam SSS, Ellis C, Pallikonda Chakravarthy S, Palani S, Anthon W, Tsaras G, Williams A, Feng A, Chen A.J Immunol. 2025 Apr 24:vkaf068. doi: 10.1093/jimmun/vkaf068. Online ahead of print.PMID: 40275513

Epidemiological trends of diarrheal viruses in central and western Kenya before and after Rotavirus vaccine introduction.

Mutua MM, Kathiiko C, Wachira MN, Muriithi B, Nyangao J, Khamadi SA, Komoto S, Morita K, Ichinose Y, Wandera EA.Trop Med Health. 2025 Apr 27;53(1):60. doi: 10.1186/s41182-025-00716-6.PMID: 40287779

In vitro evaluation of multi-protein chimeric antigens in effectively clearing the blood stage of Plasmodium falciparum.

Deshmukh B, Khatri D, Kochar SK, Athale C, Karmodiya K.Vaccine. 2025 Apr 19;53:126952. doi: 10.1016/j.vaccine.2025.126952. Epub 2025 Mar 3.PMID: 40037124

Measles Virus-Based Genetic Modifications: Progress in Hematological Malignancy Treatment.

Lan S, Zhao Z, He Z.Onco Targets Ther. 2025 Apr 25;18:605-615. doi: 10.2147/OTT.S518407. eCollection 2025.PMID: 40304006

Structural biology of Nipah virus G and F glycoproteins: Insights into therapeutic and vaccine development.

Salleh MZ.Eur J Microbiol Immunol (Bp). 2025 Apr 22. doi: 10.1556/1886.2025.00017. Online ahead of print.PMID: 40261700

Vaccination against influenza viruses annually: Renewing or narrowing the protective shield?

Matz HC, Ellebedy AH.J Exp Med. 2025 Jul 7;222(7):e20241283. doi: 10.1084/jem.20241283. Epub 2025 Apr 24.PMID: 40272481

CocoVax: a web server for codon-based deoptimization of viral genes in live attenuated vaccine design.

Li J, Shuai S.Nucleic Acids Res. 2025 Apr 29:gkaf358. doi: 10.1093/nar/gkaf358. Online ahead of print.PMID: 40297995

Mini review: SHEN26, a novel oral antiviral drug for COVID-19 treatment.

Zheng P, Li G, Chen Y, Li S, Yang S, Guo D, Zhou Q, Zhang X.Bioorg Med Chem Lett. 2025 Apr 16;124:130243. doi: 10.1016/j.bmcl.2025.130243. Online ahead of print.PMID: 40250816

Corrigendum to 'A randomised phase 2 immunogenicity and safety study of a MF59-adjuvanted quadrivalent subunit inactivated cell-derived influenza vaccine (aQIVc) in adults aged 50 years and older' Vaccine 51 (2025) 126791.

Essink BJ, Vermeulen W, Andrade C, de Rooij R, Isakov L, Casula D, Albano FR.Vaccine. 2025 Apr 25;56:127127. doi: 10.1016/j.vaccine.2025.127127. Online ahead of print.PMID: 40286564

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

Matayoshi K, Takahashi S, Ryu S, Koide H, Yonezawa S, Ozaki N, Kurata M, Asai T.Int J Pharm. 2025 Apr 15;674:125485. doi: 10.1016/j.ijpharm.2025.125485. Epub 2025 Mar 16.PMID: 40101873

Microarray patch vaccines for typhoid conjugate vaccines: A global cost-effectiveness analysis.

Antillon M, Verjans A, El Sheikh F, Scarna T, Mvundura M.Vaccine. 2025 Apr 19;53:127055. doi: 10.1016/j.vaccine.2025.127055. Epub 2025 Apr 3.PMID: 40184637

A replicon-based COVID-19 vaccine candidate delivered by tobacco mosaic virus-like particles.

Karan S, Opdensteinen P, Ma Y, De Oliveira JFA, Steinmetz NF.Vaccine. 2025 Apr 19;53:127063. doi: 10.1016/j.vaccine.2025.127063. Epub 2025 Mar 31.PMID: 40168732

A rat hepacivirus model to aid hepatitis C viral vaccine development ?

Houghton M.J Hepatol. 2025 Apr 16:S0168-8278(25)00243-0. doi: 10.1016/j.jhep.2025.04.016. Online ahead of print.PMID: 40250765

COVID vaccine works faster with both doses in the same arm.

Fieldhouse R.Nature. 2025 Apr 29. doi: 10.1038/d41586-025-01326-2. Online ahead of print.PMID: 40301598

Vaccinology: Getting our modernization act together.

Levy O.J Exp Med. 2025 May 5;222(5):e20240961. doi: 10.1084/jem.20240961. Epub 2025 Apr 22.PMID: 40261250

Genetic and Antigenic Variability in VP4 and VP7 of Group A Human Rotavirus in Yunnan, China from 2015-2020.

Ma H, Wang M, Chuan L, Long S, Qiu L, Zhao C, Sun Q, Zhang Z, Jiang H.Intervirology. 2025 Apr 29:1-19. doi: 10.1159/000546065. Online ahead of print.PMID: 40300562

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

Baehr C, Jahan R, Gebo A, Vigliaturo J, Song D, Rahman MT, Tronconi D, Khaimraj A, Seaman R, Marecki C, Kim CM, Persano S, Runyon SP, Pravetoni M.Bioconjug Chem. 2025 Apr 16;36(4):676-687. doi: 10.1021/acs.bioconjchem.4c00548. Epub 2025 Mar 16.PMID: 40091228

Cost-effectiveness of routine COVID-19 adult vaccination programmes in England.

Keeling MJ, Hill EM, Petrou S, Tran PB, Png ME, Staniszewska S, Clark C, Hassel K, Stowe J, Andrews N.Vaccine. 2025 Apr 19;53:126948. doi: 10.1016/j.vaccine.2025.126948. Epub 2025 Mar 1.PMID: 40023905

Design of a multi-epitope vaccine against Staphylococcus Aureus lukotoxin ED using in silico approaches.

Shahraki PK, Kiani R, Siavash M, Bemani P.Sci Rep. 2025 Apr 25;15(1):14517. doi: 10.1038/s41598-025-85147-3.PMID: 40280948

The Importance of Vaccines in Preventing Impending Alzheimer's Epidemic.

Tripathi S, Sharma Y, Kumar D.Rev Recent Clin Trials. 2025 Apr 14. doi: 10.2174/0115748871357356250325071712. Online ahead of print.PMID: 40231511

One-for-one or one-for-all? Considerations for filovirus vaccine development.

Marzi A.PLoS Biol. 2025 Apr 14;23(4):e3003142. doi: 10.1371/journal.pbio.3003142. eCollection 2025 Apr.PMID: 40228023

Characterization of a novel Leishmania antigen containing a repetitive domain and its potential use as a prophylactic and therapeutic vaccine.

de Oliveira B, Goes WM, Nascimento FC, Carnielli JBT, Ferreira ER, de Carvalho AF, Dos Reis PVM, Pereira M, Ricotta TQN, Dos Santos LM, de Souza RP, Cargnelutti DE, Mottram JC, Teixeira SR, Fernandes AP, Gazzinelli RT.mSphere. 2025 Apr 22:e0009725. doi: 10.1128/msphere.00097-25. Online ahead of print.PMID: 40261025

Immunogenicity, Safety, and Persistence Induced by Triple- and Standard-Strength 4-Dose Hepatitis B Vaccination Regimens in Patients Receiving Hemodialysis.

Yao T, Li Y, Zhang Y, Sun Y, Guo Y, Wang J, Song X, Zhang W, Wei B, Bai J, Wang H, Yu W, Wang H, Jiao L, Diao Y, Liu L, Shi S, Yang J, Ren X, Liu W, Fang J, Liang X, Wang S, Feng Y.J Infect Dis. 2025 Apr 15;231(4):1049-1059. doi: 10.1093/infdis/jiae494.PMID: 39378326

What is the quality of evidence informing vaccine clinical practice recommendations in Australia?

Dymock M, Marsh JA, Murray K, Snelling TL.Vaccine. 2025 Apr 19;53:127105. doi: 10.1016/j.vaccine.2025.127105. Epub 2025 Apr 11.PMID: 40215704

The lack of a biorepository during vaccine trials: A lost opportunity to understand staphylococcal immunity.

Proctor RA, Jackson AM, Fowler VG.Vaccine. 2025 Apr 19;53:126896. doi: 10.1016/j.vaccine.2025.126896. Epub 2025 Mar 5.PMID: 40048962

A replicating RNA vaccine confers protection against Crimean-Congo hemorrhagic fever in cynomolgus macaques.

Hawman DW, Leventhal S, Meade-White K, Graham W, Gaffney K, Khandhar A, Murray J, Prado-Smith J, Shaia C, Saturday G, Buda H, Moise L, Erasmus J, Feldmann H.EBioMedicine. 2025 Apr 12;115:105698. doi: 10.1016/j.ebiom.2025.105698. Online ahead of print.PMID: 40222105

Gene Editing in *Ganoderma lucidum*: Development, Challenges, and Future Prospects.

He S, Liu Y, Zhang Z, Cai M, Hao Y, Hu H.J Fungi (Basel). 2025 Apr 14;11(4):310. doi: 10.3390/jof11040310.PMID: 40278130

Past, present and future of respiratory syncytial infection prevention in infants and young children.

Esposito S, Principi N.Expert Opin Pharmacother. 2025 Apr 22:1-4. doi: 10.1080/14656566.2025.2495091. Online ahead of print.PMID: 40243138

HPV Vaccine Cuts Cervical Precancer Incidence, but Rural Access Gaps Remain.

Anderer S.JAMA. 2025 Apr 22;333(16):1385-1386. doi: 10.1001/jama.2025.2573.PMID: 40152877

Workshop report: One Health challenges and knowledge gaps in the control of intracellular infections with a focus on tuberculosis and leishmaniasis.

Miller M, Gómez MA, Tanner R, Vermaak S, Villarreal-Ramos B; VALIDATE Network One Health Working Group.Vaccine. 2025 Apr 19;53:126929. doi: 10.1016/j.vaccine.2025.126929. Epub 2025 Mar 1.PMID: 40023904

Development of a personalized digital biomarker of vaccine-associated reactogenicity using wearable sensors and digital twin technology.

Steinhubl SR, Sekaric J, Gendy M, Guo H, Ward MP, Goergen CJ, Anderson JL, Amin S, Wilson D, Paramithiotis E, Wegerich S.Commun Med (Lond). 2025 Apr 13;5(1):115. doi: 10.1038/s43856-025-00840-8.PMID: 40223099

Tumor Antigen-Coated Two-Dimensional Black Phosphorus as a Nanovaccine for Synergistic Cancer Photothermal Therapy and Immunotherapy.

Liang X, Wu G, Chen R, Lin X, Xu J, Sun W, Zhou B.ACS Appl Bio Mater. 2025 Apr 21;8(4):3473-3482. doi: 10.1021/acsabm.5c00229. Epub 2025 Apr 4.PMID: 40183216

Sabin inactivated polio vaccine upstream process development using fixed-bed bioreactor technology.

Hamidi A, Willemsen M, Robert T, Drugmand JC, Ballmann MZ, Velthof P, Verdurmen H, Pinto AC, Pronk J, Palladino L, Havenga M, Yallop C, Bakker WAM.Vaccine. 2025 Apr 19;53:126950. doi: 10.1016/j.vaccine.2025.126950. Epub 2025 Mar 3.PMID: 40037128

Global spatio-temporal distribution of coronavirus disease 2019 vaccine hesitancy between 2020 and 2022: A meta-analysis.

Zhao T, Xu Q, Cai X, Wang M, Ao L, Wei T, Yang H, Zhang S, Zhang X, Jin S, Wang X, Feng X, Zhao J, Wu Y, Yang J, Cui F.Vaccine. 2025 Apr 19;53:126933. doi: 10.1016/j.vaccine.2025.126933. Epub 2025 Mar 3.PMID: 40037126

Perceptions, attitudes, practices, and factors associated with COVID-19 vaccination among travelers in the Democratic Republic of the Congo.

Kayembe HC, Kapour G, Ansobi P, Jarboui A, Bantu AK, Elumbu G, Nkutu N, Mbuyi E, Moyo A, Mbatu V, Nto A, Ngondu M, Muhindo B, Lukunku S, Mboyolo O, Sory TI, Bompangue D.Trop Dis Travel Med Vaccines. 2025 Apr 15;11(1):10. doi: 10.1186/s40794-024-00240-1.PMID: 40229895

Intranasal application of a bifunctional pertactin-RTX fusion antigen elicits protection of mouse airway mucosa against *Bordetella pertussis* colonization.

Espinosa-Vinals C, Holubova J, Stanek O, Osicka R, Masin J, Arellano Herencia FE, Sebo P.mSphere. 2025 Apr 29;10(4):e0095924. doi: 10.1128/msphere.00959-24. Epub 2025 Mar 31.PMID: 40162794

Immunogenicity of inactivated quadrivalent influenza vaccine in pregnant women, including the level of postvaccination antibodies in umbilical cord blood.

Zasztowt-Sternicka M, Jagielska A, Rząd M, Szymusik I, Hallmann E, Brydak L, Nitsch-Osuch A.Vaccine. 2025 Apr 19;53:127047. doi: 10.1016/j.vaccine.2025.127047. Epub 2025 Apr 8.PMID: 40203592

Process development of tangential flow filtration and sterile filtration for manufacturing of mRNA-lipid nanoparticles: A study on membrane performance and filtration modeling.

Wu W, Oliveira LT, Jain A, Karpov Y, Olsen K, Wu Y, Gopalakrishna Panicker RK.Int J Pharm. 2025 Apr 30;675:125520. doi: 10.1016/j.ijpharm.2025.125520. Epub 2025 Mar 24.PMID: 40139451

Budd-Chiari syndrome after BNT162b2 mRNA vaccination: two case reports.

Lipszyc L, Triquet L, Giguet B, Lambotte O, Babai S.Eur J Hosp Pharm. 2025 Apr 23;32(3):286-288. doi: 10.1136/ejhpharm-2023-003997.PMID: 39038924

Expression Purification and Immunogenicity Detection of HtsA + FtsB Fusion Protein From Streptococcus pyogenes.

Li J, Ju Y, Jiang M, Wang JX, Li S, Yang XY.Microbiol Immunol. 2025 Apr 11. doi: 10.1111/1348-0421.13217. Online ahead of print.PMID: 40213873

A single residue in domain II of envelope protein of yellow fever virus is critical for neutralization sensitivity.

Lou Y-N, Sun M-X, Li K, Xiong X-C, Zhou C, Cao T-S, Li X-F, Qin C-F.J Virol. 2025 Apr 15;99(4):e0177024. doi: 10.1128/jvi.01770-24. Epub 2025 Feb 28.PMID: 40019254

Epigenetically Reprogrammed Nanovesicles as Inverse Vaccines for Antigen-Specific Immune Tolerance in Autoimmune Diseases.

Xi Y, Ma H, Liu X, Mu Q, An X, Li S, Liang H, Sun D, Ma R, Deng H, Wu Z, Zhang C, Liu G, Liu C.Nano Lett. 2025 Apr 23;25(16):6725-6734. doi: 10.1021/acs.nanolett.5c00986. Epub 2025 Apr 11.PMID: 40213869

COVID-19 vaccination uptake in people experiencing homelessness during the first three years of the global COVID-19 vaccination effort: A systematic review and meta-analysis.

McCosker LK, Dyer B, Sudarmana T, Seale H, Ware RS.Vaccine. 2025 Apr 19;53:127050. doi: 10.1016/j.vaccine.2025.127050. Epub 2025 Apr 3.PMID: 40184638

Designing a National Rapid Vaccine Coverage Survey in low-resource settings: Experiences from the Democratic Republic of the Congo 2018-2023.

Mafuta EM, Lulebo AM, Kasonga JN, Mvuama NM, Luhata CL, Hoff NA, Nkamba DM, Merritt S, Otomba JS, Mbunga BK, Cikomola AMWB, Rimoin AW, Mukendi JC, LeGargasson JB, Nogier C, Kinuani L, Nimpa MM, Ishoso DK, Mudipanu AN, Manirakiza D, Kaba DK, Nyandwe JK, Danovaro-Holliday MC, El Mourid A, Lusamba PD.Vaccine. 2025 Apr 19;53:126956. doi: 10.1016/j.vaccine.2025.126956. Epub 2025 Mar 2.PMID: 40031089

Combination therapy with alisertib enhances the anti-tumor immunity induced by a liver cancer vaccine.

Xue F, Liu J, Wu J, Li X, Zhu N, Tang S, Zhang M, Duan H, Wang R, Zhang J.iScience. 2025 Mar 15;28(4):112120. doi: 10.1016/j.isci.2025.112120. eCollection 2025 Apr 18.PMID: 40230537

Role of glucuronoxylomannan and steryl glucosides in protecting against cryptococcosis.

Matos GS, Querobino SM, Brauer VS, Joffe LS, Pereira de Sa N, Fernandes CM, DaSilva D, da Silva VA, Cavalcanti Neto MP, Normile T, Zhu H, Bhatia SR, Tan L, Azadi P, Heiss C, Doering TL, Del Poeta M.mBio. 2025 Apr 29:e0098425. doi: 10.1128/mbio.00984-25. Online ahead of print.PMID: 40298449

Rapidly separable bubble microneedle-patch system present superior transdermal mRNA delivery efficiency.

Wu J, Zuo J, Dou W, Wang K, Long J, Yu C, Miao Y, Liao Y, Li Y, Cao Y, Lu L, Jin Y, Zhang B, Yang J.Int J Pharm. 2025 Apr 15;674:125427. doi: 10.1016/j.ijpharm.2025.125427. Epub 2025 Mar 10.PMID: 40074159

2023-2024 COVID-19 vaccine uptake among immunocompromised individuals in two US states.

McGrath LJ, Khan FL, Lopez SMC, Brouillette MA, Andersen KM, Yu T, Carter BT, Puzniak LA, McLaughlin JM.Vaccine. 2025 Apr 23;56:127120. doi: 10.1016/j.vaccine.2025.127120. Online ahead of print.PMID: 40273589

Recombinant infectious bronchitis virus containing mutations in non-structural proteins 10, 14, 15, and 16 and within the macrodomain provides complete protection against homologous challenge.

Keep S, Foldes K, Dowgier G, Freimanis G, Tennakoon C, Chowdhury S, Rayment A, Kirk J, Bakshi T, Stevenson-Leggett P, Chen Y, Britton P, Bickerton E.J Virol. 2025 Apr 15;99(4):e0166324. doi: 10.1128/jvi.01663-24. Epub 2025 Feb 27.PMID: 40013770

Effect of a Vaccine Mandate in Nonessential Public Spaces in New Orleans, Louisiana, on COVID-19 Vaccine Uptake, 2021-2022.

Ratnayake A, Stoecker C, Kissinger PJ.Public Health Rep. 2025 Apr 29:333549251315073. doi: 10.1177/00333549251315073. Online ahead of print.PMID: 40298101

Enhancing vaccine stability in transdermal microneedle platforms.

Pahal S, Huang F, Singh P, Sharma N, Pham HP, Tran TBT, Sakhrie A, Akbaba H, Duc Nguyen T.Drug Deliv Transl Res. 2025 Apr 16. doi: 10.1007/s13346-025-01854-4. Online ahead of print.PMID: 40240731

Antimicrobial resistance and vaccines in Enterobacteriaceae including extraintestinal pathogenic Escherichia coli and Klebsiella pneumoniae.

Cabrera A, Mason E, Mullins LP, Sadarangani M.NPJ Antimicrob Resist. 2025 Apr 28;3(1):34. doi: 10.1038/s44259-025-00100-8.PMID: 40295787

Misconceptions and knowledge gaps about HPV, cervical cancer, and HPV vaccination among central American immigrant parents in the United States.

Moreno VA, Nogueira DL, Delgado D, Valdez MJ, Lucero D, Hernandez Nieto A, Rodriguez-Cruz N, Lindsay AC.Hum Vaccin Immunother. 2025 Dec;21(1):2494452. doi: 10.1080/21645515.2025.2494452. Epub 2025 Apr 28.PMID: 40293217

A national cross-sectional study of dentists' vaccine hesitancy and intention to provide HPV vaccines following emergency COVID-19 vaccination authorization.

Flynn PM, Stull C, Jain VM, Evans MD.Vaccine. 2025 Apr 19;53:127035. doi: 10.1016/j.vaccine.2025.127035. Epub 2025 Apr 4.PMID: 40186992

Corrigendum to "Nasopharyngeal carriage of Streptococcus pneumoniae among children and their household members in southern Mozambique five years after PCV10 introduction" Vaccine, Volume 47, 15 February 2025, 126,691.

Kahn R, Moiane B, Lessa FC, Massora S, Mabombo V, Chauque A, Tembe N, Mucavele H, Whitney CG, Sacoor C, Matsinhe G, Pimenta FC, da Gloria Carvalho M, Sigauque B, Verani J.Vaccine. 2025 Apr 21;56:127124. doi: 10.1016/j.vaccine.2025.127124. Online ahead of print.PMID: 40262370

Differences in seasonal influenza vaccine hesitancy profiles between clinicians practicing traditional Chinese medicine and modern Western medicine: A national cross-sectional survey.

Zhang L, Xia Y, Chu L, Sundaram ME, Zhou Y, Sun X, Wei Z, Fu C.Vaccine. 2025 Apr 19;53:127106. doi: 10.1016/j.vaccine.2025.127106. Epub 2025 Apr 11.PMID: 40215703

Attitudes Toward COVID-19 Vaccination and Clinical Trials Among Saudi University Students.

Daher S, Fakhoury HMA, Tamim H, Saleem R, Alshammary BS, Alzahrani RJ, Alzahrani NM, Geraat EA, Abolfotouh M, Jawdat D.J Epidemiol Glob Health. 2025 Apr 16;15(1):61. doi: 10.1007/s44197-025-00393-y.PMID: 40237969

Can reflection mitigate COVID-19 vaccine conspiracy beliefs and hesitancy?

Bayrak F, Kayatepe E, Özman N, Yilmaz O, Isler O, Saribay SA.Psychol Health. 2025 Apr 20:1-32. doi: 10.1080/08870446.2025.2491598. Online ahead of print.PMID: 40254737

Vaccinology in the artificial intelligence era.

Gasperini G, Baylor N, Black S, Bloom DE, Cramer J, de Lannoy G, Denoel P, Feinberg M, Helleputte T, Kang G, Schief WR, Stuart L, Weller C, Zwierzyna M, Rappuoli R.Sci Transl Med. 2025 Apr 16;17(794):eadu3791. doi: 10.1126/scitranslmed.adu3791. Epub 2025 Apr 16.PMID: 40238919

Bioengineered ClearColi-derived outer membrane vesicles displaying CT26 neoepitopes as potent vaccine adjuvants against colon carcinoma in a preventive mouse model.

Sharif E, Mobasheri T, Mohit E.Vaccine. 2025 Apr 19;53:127088. doi: 10.1016/j.vaccine.2025.127088. Epub 2025 Apr 11.PMID: 40209628

Exosome-based cancer vaccine: a cell-free approach.

Sonar S, Das A, Kalele K, Subramaniyan V.Mol Biol Rep. 2025 Apr 24;52(1):421. doi: 10.1007/s11033-025-10519-x.PMID: 40272645

Grand Challenges on HIV/AIDS in China - The 5th Symposium, Yunnan 2024.

Chen Z, Xu J, Jin X, Wang J, Huang J, Zhang H, Chen L, Deng K, Cai W, Li L, Wang F, Wu Z, Shang H, Wu H; and the GCC Scientists.Emerg Microbes Infect. 2025 Dec;14(1):2492208. doi: 10.1080/22221751.2025.2492208. Epub 2025 Apr 22.PMID: 40202047

Epitope-optimized vaccine elicits enduring immunity against swine influenza A virus.

Petro-Turnquist EM, Madapong A, Pekarek M, Steffen D, Weaver EA.Nat Commun. 2025 Apr 30;16(1):4046. doi: 10.1038/s41467-025-59182-7.PMID: 40301303

Safety, immunogenicity, efficacy, and effectiveness of Lassa fever vaccines in pregnant persons, children, and adolescents: a protocol for a living systematic review and meta-analysis.

Ballivian J, Berrueta M, Ciapponi A, Sambade JM, Stegelmann K, Mazzoni A, Bardach A, Brizuela M, Comandé D, Castellana N, Parker EPK, Stergachis A, Xiong X, Munoz FM, Buekens PM.Reprod Health. 2025 Apr 15;22(1):53. doi: 10.1186/s12978-025-02008-y.PMID: 40234991

In-silico and experimental analysis of Klebsiella pneumoniae fimbriae subunits for vaccine development.

Assoni L, Valim V, Couto AJM, Trentini M, Gonçalves VM, Ferraz LFC, Sciani JM, Cremonesi AS, Converso TR, de Carvalho LM, Darrieux M.Vaccine. 2025 Apr 19;53:127075. doi: 10.1016/j.vaccine.2025.127075. Epub 2025 Apr 11.PMID: 40203594

A One Health approach to bovine coronavirus vaccine development, using LSDV as a live virus vector.

Chineka N, Whittle L, Douglass N, Williamson AL, Chapman R.Hum Vaccin Immunother. 2025 Dec;21(1):2480891. doi: 10.1080/21645515.2025.2480891. Epub 2025 Apr 11.PMID: 40214201

Increasing confidence for pediatric COVID-19 and influenza vaccines using messages affirming parental autonomy: A randomized online experiment.

Cotter LM, Hopkins-Sheets M, Yang S, Passmore SR, Bhattar M, Henning E, Schultz D, Latham E, Jones M.Vaccine. 2025 Apr 19;53:126947. doi: 10.1016/j.vaccine.2025.126947. Epub 2025 Mar 2.PMID: 40031087

Immune profiling of smoldering multiple myeloma patients treated in a phase lb study of PVX-410 vaccine targeting XBP1/CD138/CS1 antigens, and citarinostat, a histone deacetylase inhibitor (HDACi) with and without lenalidomide.

Cirstea D, Shome R, Samur M, Talluri S, Connolly JJ, Wright AJ, Duvallet E, Joyce ANR, Lively K, Basinsky G, Yee AJ, Chase CC, Malek E, Niesvizky R, Richardson PG, Raje NS.Blood Cancer J. 2025 Apr 24;15(1):77. doi: 10.1038/s41408-025-01272-2.PMID: 40274800

Unveiling the complexity of vaccine hesitancy: A narrative review focusing on dengue vaccination.

Charoenwisedsil R, Lawpoolsri S, Rattanaumpawan P, Goh DYT, Flaherty GT, Ngamprasertchai T.Hum Vaccin Immunother. 2025 Dec;21(1):2491994. doi: 10.1080/21645515.2025.2491994. Epub 2025 Apr 22.PMID: 40260512

Chikungunya virus virus-like particle vaccine safety and immunogenicity in adults older than 65 years: a phase 3, randomised, double-blind, placebo-controlled trial.

Tindale LC, Richardson JS, Anderson DM, Mendy J, Muhammad S, Loreth T, Tredo SR, Ramanathan R, Jenkins VA, Bedell L, Ajiboye P; EBSI-CV-317-005 Study Group.Lancet. 2025 Apr 19;405(10487):1353-1361. doi: 10.1016/S0140-6736(25)00372-1. Epub 2025 Mar 27.PMID: 40158524

Lessons for polio eradication from the geographic variations of vaccine efficacy of oral polio.

John TJ, Dharmapalan D, Steinglass R, Hirschhorn N.Vaccine. 2025 Apr 19;53:127115. doi: 10.1016/j.vaccine.2025.127115. Epub 2025 Apr 11.PMID: 40220707

A systematic review and thematic synthesis exploring how gay, bisexual and other men who have sex with men (GBMSM) experience HPV and HPV vaccination.

Pow J, Clarke L, McHale S, Gray-Brunton C.Hum Vaccin Immunother. 2025 Dec;21(1):2490440. doi: 10.1080/21645515.2025.2490440. Epub 2025 Apr 15.PMID: 40231489

The Association Between Cultural Tightness and COVID-19 Vaccine Confidence From 28 Countries: Cross-Sectional Study.

Wang Q, Bolio A, Lin L.JMIR Public Health Surveill. 2025 Apr 24;11:e66872. doi: 10.2196/66872.PMID: 40273341

Unveiling Prospective Therapeutic Potential of Conserved Hypothetical Plasmodium falciparum Proteins by Using Integrated Proteo Genomic Annotation and In-Silico Therapeutic Discovery Approach.

Panda M, Srivastava V, Singh S, Prusty D.Protein J. 2025 Apr 11. doi: 10.1007/s10930-025-10265-w. Online ahead of print.PMID: 40216665

Safety, immunogenicity, and effectiveness of chikungunya vaccines in pregnant persons, children, and adolescents: a protocol for a living systematic review and meta-analysis.

Berrueta M, Ciapponi A, Mazzoni A, Ballivian J, Bardach A, Sambade JM, Brizuela M, Stegelman K, Comandé D, Parker EPK, Stergachis A, Xiong X, Munoz FM, Buekens PM.Reprod Health. 2025 Apr 18;22(1):56. doi: 10.1186/s12978-025-02004-2.PMID: 40251607

Fe-Doped Carbon Dots-Incorporated In Situ Hydrogel for Near Infrared-Triggered Cascading Photothermal/Thermodynamic Therapy to Boost Cancer Immunity Cycle.

Du F, Xu L, Wang H, Lu M, Wang Q, Qiu X, Chen B, Zhang M.Biomacromolecules. 2025 Apr 14;26(4):2601-2613. doi: 10.1021/acs.biomac.5c00051. Epub 2025 Mar 7.PMID: 40052540

Deep mutational scanning and CRISPR-engineered viruses: tools for evolutionary and functional genomics studies.

Paz M, Moratorio G.mSphere. 2025 Apr 24:e0050824. doi: 10.1128/msphere.00508-24. Online ahead of print.PMID: 40272173

Neonatal antibiotics impair infant vaccine responses.

Minton K.Nat Rev Immunol. 2025 Apr 23. doi: 10.1038/s41577-025-01176-z. Online ahead of print.PMID: 40269274

SARS-CoV-2 infection in the Indigenous Pataxo community of Southern Bahia, Brazil: second wave of transmission and vaccine effects.

Reis LR, Saad MHF.Cad Saude Publica. 2025 Apr 25;41(4):e00112724. doi: 10.1590/0102-311XEN112724. eCollection 2025.PMID: 40298682

The GP2a 91/97/98 amino acid substitutions play critical roles in determining PRRSV tropism and infectivity but do not affect immune responses.

Qiu M, Li S, Li S, Sun Z, Lin H, Yang S, Cui M, Qiu Y, Qi W, Yu X, Shang S, Tian K, Meurens F, Zhu J, Chen N.J Virol. 2025 Apr 15;99(4):e0004825. doi: 10.1128/jvi.00048-25. Epub 2025 Mar 12.PMID: 40071920

Controlling reactogenicity while preserving immunogenicity from a self-amplifying RNA vaccine by modulating nucleocytoplasmic transport.

Wojcechowskyj JA, Jong RM, Mäger I, Flach B, Munson PV, Mukherjee PP, Mertins B, Barcay KR, Folliard T.NPJ Vaccines. 2025 Apr 29;10(1):85. doi: 10.1038/s41541-025-01135-8.PMID: 40301369

HVTN 123: A Phase 1, Randomized Trial Comparing Safety and Immunogenicity of CH505TF gp120 Produced by Stably and Transiently Transfected Cell Lines.

Wilson GJ, Church LWP, Kelley CF, Robinson ST, Lu Y, Furch BD, Fong Y, Paez CA, Yacovone M, Jacobsen T, Maughan M, Martik D, Heptinstall JR, Zhang L, Montefiori DC, Tomaras GD, Kublin JG, Corey L.J Infect Dis. 2025 Apr 15;231(4):e764-e769. doi: 10.1093/infdis/jiae558.PMID: 39671174

TLR7-Adjuvanted Ionizable Lipid Nanoparticles for mRNA Vaccine Delivery.

Misra B, Hughes KA, Pentz WH, Surface M, Geldenhuys WJ, Bobbala S.AAPS J. 2025 Apr 25;27(4):80. doi: 10.1208/s12248-025-01073-2.PMID: 40281311

Opportunities and Challenges for Nanomaterials as Vaccine Adjuvants.

Li Z, Chen P, Qu A, Sun M, Xu L, Xu C, Hu S, Kuang H.Small Methods. 2025 Apr 25:e2402059. doi: 10.1002/smtd.202402059. Online ahead of print.PMID: 40277301

Group A Streptococcus vaccine Development: An Indian public health imperative.

Moses V, B J, Sahni RD, Lal B, John J, Raghava V, Biswas I, Dhar N.Indian J Med Microbiol. 2025 Apr 17;55:100855. doi: 10.1016/j.ijmmb.2025.100855. Online ahead of print.PMID: 40252837

Factors Associated With the Transmission of the Delta Severe Acute Respiratory Syndrome Coronavirus 2 Variant in Households: The Israeli COVID-19 Family Study (ICoFS).

Cortier T, Gilboa M, Layan M, Joseph G, Meltzer L, Amit S, Rubin C, Lustig Y, Alroy-Preis S, Kreiss Y, Cauchemez S, Regev-Yochay G.J Infect Dis. 2025 Apr 15;231(4):e734-e742. doi: 10.1093/infdis/jiaf001.PMID: 39921601

Delivery of PLGA-Loaded Influenza Vaccine Microparticles Using Dissolving Microneedles Induces a Robust Immune Response.

Adediran E, Arte T, Pasupuleti D, Vijayanand S, Singh R, Patel P, Gulani M, Ferguson A, Uddin M, Zughaier SM, D'Souza MJ.Pharmaceutics. 2025 Apr 12;17(4):510. doi: 10.3390/pharmaceutics17040510.PMID: 40284505

Fourteen anti-tick vaccine targets are variably conserved in cattle fever ticks.

Busch JD, Stone NE, Pemberton GL, Roberts ML, Turner RE, Thornton NB, Sahl JW, Lemmer D, Buckmeier G, Davis SK, Guerrero-Solorio RI, Karim S, Klafke G, Thomas DB, Olafson PU, Ueti M, Mosqueda J, Scoles GA, Wagner DM.Parasit Vectors. 2025 Apr 15;18(1):140. doi: 10.1186/s13071-025-06683-5.PMID: 40234925

A T7 autogene-mediated DNA vaccine platform for SARS-CoV-2: Overcoming DNA vaccine limitations with enhanced spike mRNA production.

Cho SW, Shin SC, Nam Y, Ahn HJ.J Control Release. 2025 Apr 24;383:113776. doi: 10.1016/j.jconrel.2025.113776. Online ahead of print.PMID: 40287096

Parental status and gender are associated with differences in Tdap vaccination rates among United States adults.

Griffin LB, Polnaszek BE, Shin J, Clark MA, Lewkowitz AK, Amanullah S, Gjelsvik A.Vaccine. 2025 Apr 11;52:126901. doi: 10.1016/j.vaccine.2025.126901. Epub 2025 Feb 24.PMID: 39999541

Unveiling the multi-characteristic potential of hyper-productive suspension MDCK cells for advanced influenza A virus propagation.

Ye Q, Xiao Z, Bai C, Yao H, Zhao L, Tan WS.Vaccine. 2025 Apr 11;52:126900. doi: 10.1016/j.vaccine.2025.126900. Epub 2025 Feb 21.PMID: 39985968

Partnering with social media influencers to promote HPV vaccination in diverse communities.

Leader AE, Burke-Garcia A, Afanaseva D, Cutroneo E, Selvan P, Madden K, Banks J, Sustaita-Ruiz A.Vaccine. 2025 Apr 19;53:127085. doi: 10.1016/j.vaccine.2025.127085. Epub 2025 Apr 4.PMID: 40186996

Intranasal spike and nucleoprotein fusion protein-based vaccine provides cross-protection and reduced transmission against SARS-CoV-2 variants.

Lakhrif Z, Poupée-Beaugé A, Boursin F, Ducournau C, Lantier L, Moiré N, Carpentier R, Rossignol C, Maquart M, Jospin F, Merat L, Caul-Futy M, Yazdanpanah Y, Bouakane A, Riou M, Touzé A, Eléouët JF, Richard CA, Helle F, Le Poder S, Klonjkowski B, Meunier N, Zientara S, Paul S, Mévélec MN, Aubrey N, Epardaud M, Dimier-Poisson I.NPJ Vaccines. 2025 Apr 18;10(1):75. doi: 10.1038/s41541-025-01123-y.PMID: 40251181

Multivalent vaccine candidate from conserved immunogenic peptides in entry or exit proteins of Orthopoxvirus genus.

de Araújo LP, Silva EN, de Alencar SM, Corsetti PP, de Almeida LA.Sci Rep. 2025 Apr 11;15(1):12503. doi: 10.1038/s41598-025-96755-4.PMID: 40216856

Australia's rotavirus immunisation program: Impact on acute gastroenteritis and intussusception hospitalisations over 13 years.

Dey A, Jackson J, Wang H, Lambert SB, McIntyre P, Macartney K, Beard F.Vaccine. 2025 Apr 11;52:126789. doi: 10.1016/j.vaccine.2025.126789. Epub 2025 Feb 22.PMID: 39985966

Utility of edible plant-derived exosome-like nanovesicles as a novel delivery platform for vaccine antigen delivery.

Kim HJ, Lee SH, Park YS, Seo DW, Seo KW, Kim DK, Jang YH, Lim JH, Cho YE.Vaccine. 2025 Apr 11;52:126902. doi: 10.1016/j.vaccine.2025.126902. Epub 2025 Feb 26.PMID: 40014983

Effectiveness of mRNA COVID-19 Vaccines and Hybrid Immunity in Preventing SARS-CoV-2 Infection and Symptomatic COVID-19 Among Adults in the United States.

Feldstein LR, Ruffin J, Wiegand RE, Borkowf CB, James-Gist J, Babu TM, Briggs-Hagen M, Chappell J, Chu HY, Englund JA, Kuntz JL, Lauring AS, Lo N, Carone M, Lockwood C, Martin ET, Midgley CM, Monto AS, Naleway AL, Ogilvie T, Saydah S, Schmidt MA, Schmitz JE, Smith N, Sohn I, Starita L, Talbot HK, Weil AA, Grijalva CG.J Infect Dis. 2025 Apr 15;231(4):e743-e753. doi: 10.1093/infdis/jiaf007.PMID: 39774936

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

Beavis AC, Li Z, Briggs K, Gingerich MC, Wrobel ER, Najera M, An D, Orr-Burks N, Murray J, Patil P, Huang J, Mousa J, Hao L, Hsiang T-Y, Gale M Jr, Harvey SB, Tompkins SM, Hogan RJ, Lafontaine ER, Jin H, He B.J Virol. 2025 Apr 15;99(4):e0198924. doi: 10.1128/jvi.01989-24. Epub 2025 Mar 21.PMID: 40116505

A novel approach using IFNAR1 KO mice for assessing Akabane virus pathogenicity and vaccine efficacy.

Na EJ, Chae SB, Oh B, Jeong CG, Park SC, Oem JK.Vaccine. 2025 Apr 19;53:127094. doi: 10.1016/j.vaccine.2025.127094. Epub 2025 Apr 11.PMID: 40209629

Glycoconjugate Vaccine Quantification: An Overview on Present and Future Trends in Analytical Development.

Santostefano G, Corrado A, Malzone C, Di Pietro S, Di Bussolo V, De Ricco R.Anal Chem. 2025 Apr 28. doi: 10.1021/acs.analchem.4c04546. Online ahead of print.PMID: 40293143

Bispecific antibodies against the hepatitis C virus E1E2 envelope glycoprotein.

Radić L, Offersgaard A, Kadavá T, Zon I, Capella-Pujol J, Mulder F, Koekkoek S, Spek V, Chumbe A, Bukh J, van Gils MJ, Sanders RW, Yin VC, Heck AJR, Gottwein JM, Sliepen K, Schinkel J.Proc Natl Acad Sci U S A. 2025 Apr 15;122(15):e2420402122. doi: 10.1073/pnas.2420402122. Epub 2025 Apr 7.PMID: 40193609

Mobile Health-Based Motivational Interviewing to Promote SARS-CoV-2 Vaccination in Rural Adults: Protocol for a Pilot Randomized Controlled Trial.

Braun A, Corcoran S, Tu Doan K, Jernigan C, Moriasi C, Businelle M, Bui T.JMIR Res Protoc. 2025 Apr 28;14:e64010. doi: 10.2196/64010.PMID: 40294409

The Role of Medical Mistrust in Vaccination Decisions in Rural, Indigenous Namibian Communities.

Prall S, Scelza B, Davis HE.J Racial Ethn Health Disparities. 2025 Apr 21. doi: 10.1007/s40615-025-02442-5. Online ahead of print.PMID: 40259187

Prevalence and determinants of vaccination intention towards routine immunizations in university students: a systematic review and meta-analysis.

Mussetto I, Bernucci MC, Kaminska AE, Isonne C, Sciurti A, Migliara G, Renzi E, Massimi A, Marzuillo C, De Vito C, Villari P, Baccolini V.BMC Public Health. 2025 Apr 17;25(1):1443. doi: 10.1186/s12889-025-22697-1.PMID: 40247258

Human papillomavirus awareness, vaccination rate, and sociodemographic covariates of vaccination status in a low-income country: A cross-sectional study in the rural Busoga region of Uganda.

Einarson TA, Musana E, Balonde J, Lorentzen KB, Kallestrup R, Juncker M, Damoi JO, Nakami S, Kallestrup P.Vaccine. 2025 Apr 19;53:127089. doi: 10.1016/j.vaccine.2025.127089. Epub 2025 Apr 11.PMID: 40209627

Genome-wide association study of common side effects following COVID-19 booster vaccination in a cohort of corporate employees in Japan.

Omae Y, Khor SS, Shimada M, Kawai Y, Yamaguchi T, Yagi M, Ebisawa M, Takeuchi JS, Mizoue T, Sugiura W, Tokunaga K.Sci Rep. 2025 Apr 13;15(1):12728. doi: 10.1038/s41598-025-90787-6.PMID: 40222985

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

Beavis AC, Xiao P, Gingerich MC, Briggs K, Li G, Howerth EW, Najera M, An D, Huang J, Mousa J, Tompkins SM, Kim G, Harvey SB, Hogan RJ, Lafontaine ER, Villinger FJ, Jin H, He B.J Virol. 2025 Apr 15;99(4):e0199024. doi: 10.1128/jvi.01990-24. Epub 2025 Mar 21.PMID: 40116506

Expression, purification, and immunogenicity study of human papillomavirus type 52 virus-like particles produced in Hansenula polymorpha.

Chairunnisa S, Mustopa AZ, Bela B, Arifah RK, Umami RN, Firdaus MER, Ekawati N, Irawan H, Irawan S, Nurfatwa M, Hertati A, Swasthikawati S, Novianti E, Kusumawati A, Darusman HS.Biologicals. 2025 Apr 13;90:101831. doi: 10.1016/j.biologicals.2025.101831. Online ahead of print.PMID: 40228400

COVID-19 vaccine uptake and associated factors among health professionals: a facility-based, cross-sectional study in the Amhara region, Ethiopia.

Zeru T, Yitayal M, Salew D, Shiferaw MB, Tarekegn M, Ayenew GM, Belete B, Amsalu A, Geremew TT, Endalamaw D, Hassen SL, Asres GD, Worku M, Bezabih B, Yismaw G.BMJ Open. 2025 Apr 15;15(4):e090048. doi: 10.1136/bmjopen-2024-090048.PMID: 40233963

Evolution of antigenic diversity in the zoonotic multi-host parasite Schistosoma japonicum: implications for vaccine design.

Parsons DAJ, Walker AJ, Emery AM, Allan F, Lu DB, Webster JP, Lawton SP.Int J Parasitol. 2025 Apr 14:S0020-7519(25)00066-9. doi: 10.1016/j.ijpara.2025.04.004. Online ahead of print.PMID: 40204227

Scale-up of a low-temperature spray-drying process for a tuberculosis vaccine candidate using lab-scale equipment.

Aisenstat M, McCollum J, Ordoubadi M, Wang H, Minootan Z, Gerhardt A, Martin AR, Fox CB, Vehring R.Int J Pharm. 2025 Apr 15;674:125456. doi: 10.1016/j.ijpharm.2025.125456. Epub 2025 Mar 10.PMID: 40074162

Vaccine uptake and adherence to non-pharmaceutical interventions at a youth mass gathering event: A longitudinal field cohort study.

Ferris LJ, Kang J, Rathbone JA, Cruwys T, Stevens M, Donaldson JL, Ranse J, Barlow FK.Travel Med Infect Dis. 2025 Apr 13;65:102853. doi: 10.1016/j.tmaid.2025.102853. Online ahead of print.PMID: 40233836

Thymic stromal lymphopoietin improves protective immunity of the SARS-CoV-2 subunit vaccine by inducing dendritic cell-dependent germinal center response.

Hu H, Zhang Y, Zheng H, Zhao X, Ran W, Liao C, Lu M, Zhou J, Song X, Ye L.J Virol. 2025 Apr 15;99(4):e0232324. doi: 10.1128/jvi.02323-24. Epub 2025 Mar 4.PMID: 40035515

Parents' experiences of accessing childhood vaccination services in England: A qualitative longitudinal cohort study.

Chisnall G, Letley L, Mounier-Jack S, Bedford H, Chantler T.Vaccine. 2025 Apr 11;52:126921. doi: 10.1016/j.vaccine.2025.126921. Epub 2025 Mar 5.PMID: 40048862

Norovirus outbreaks and the necessity of a future NoV vaccine.

Cordero DA Jr.Ther Adv Vaccines Immunother. 2025 Apr 21;13:25151355251335511. doi: 10.1177/25151355251335511. eCollection 2025.PMID: 40291642

Circular RNAs in gynecological cancer: From molecular mechanisms to clinical applications (Review).

Liu Y, Ai H.Oncol Lett. 2025 Apr 11;29(6):291. doi: 10.3892/ol.2025.15037. eCollection 2025 Jun.PMID: 40271005

Barriers to COVID-19 Vaccination and Perceptions Around Vaccination Uptake Strategies Among African Americans Living in the US South: Opportunities for Public Health Program Intervention.

Tiwari BB, Woldman T, Resma SS, Matta J, Padilla H, Rajbhandari-Thapa J.J Racial Ethn Health Disparities. 2025 Apr 28. doi: 10.1007/s40615-025-02433-6. Online ahead of print.PMID: 40293689

Preparation and Evaluation of Novel Epitope-Based ETEC K88-K99 Bivalent Vaccine.

Wang S, Yang Y, Yue X, Liu Z, Yuan F, Yang K, Zhu J, Liu W, Tian Y, Wu Q, Gao T, Li C, Song H, Zhou D, Bei W.Vet Sci. 2025 Apr 18;12(4):381. doi: 10.3390/vetsci12040381.PMID: 40284883

[Therapeutics and (hypothetical) vaccinations against human cryptosporidia].

Borkens Y.Z Gastroenterol. 2025 Apr 29. doi: 10.1055/a-2551-1670. Online ahead of print.PMID: 40300634

Behaviors, perceptions, and impact of the COVID-19 pandemic and vaccination on oncology patients in New Mexico with substantial representation of racial minorities and rural residents.

Sasankan S, Gathers D, Bellerose A, Pankratz VS, Tawfik B.Vaccine. 2025 Apr 19;53:127091. doi: 10.1016/j.vaccine.2025.127091. Epub 2025 Apr 11.PMID: 40203593

Safety monitoring of health outcomes following influenza vaccination during the 2023-2024 season among U.S. Medicare beneficiaries aged 65 years and older.

Lloyd PC, Acharya G, Zhao H, Shah N, Anguzu G, Ambarsoomzadeh D, Clarke TC, Ng X, Hu M, Chillarige Y, Forshee RA, Anderson SA.Vaccine. 2025 Apr 19;53:127069. doi: 10.1016/j.vaccine.2025.127069. Epub 2025 Apr 8.PMID: 40203591

Role of artificial intelligence in advancing immunology.

Alanazi HH.Immunol Res. 2025 Apr 24;73(1):76. doi: 10.1007/s12026-025-09632-7.PMID: 40272607

Allergy-like nocebo events reported with COVID-19 vaccines: a case control study.

Bres V, Ben Fadhel N, Trouillet R, Broc G, Chiriac A, Faillie JL.Expert Opin Drug Saf. 2025 Apr 29:1-9. doi: 10.1080/14740338.2025.2497397. Online ahead of print.PMID: 40265270

Rabies Vaccination and Public Health Insights in the Extended Arabian Gulf and Saudi Arabia: A Systematic Scoping Review.

Hetta HF, Albalawi KS, Almalki AM, Albalawi ND, Albalawi AS, Al-Atwi SM, Alatawi SE, Alharbi MJ, Albalawi MF, Alharbi AA, Elfadil H, Albalawi AS, Sayad R.Diseases. 2025 Apr 21;13(4):124. doi: 10.3390/diseases13040124.PMID: 40277834

Capsular immunity is necessary for protection against some but not all strains of Glaesserella parasuis.

Hau SJ, Luan SL, Weinert LA, Langford PR, Rycroft A, Wren BW, Maskell DJ, Tucker AWD, Brockmeier SL.Vet Microbiol. 2025 Apr 11;305:110509. doi: 10.1016/j.vetmic.2025.110509. Online ahead of print.PMID: 40250105

Brucella inactivated vaccine elicits immunity against B. melitensis infection in mice and guinea pigs.

Hu R, Zhang Q, Wang W, Ren W, Yao M, Xu Y, Zhang H, Sheng J, Wang Y, Chen C, Ma Z.Biomed Pharmacother. 2025 Apr 24;187:118077. doi: 10.1016/j.biopha.2025.118077. Online ahead of print.PMID: 40280033

Barriers and motivators associated with COVID-19 vaccination-a vaccine acceptance scoring system based on a population survey in southern Sweden.

Mitchell A, Hassan M, Kahn F, Litins'ka Y, Almgren M, Malmqvist U, Östergren PO, Inghammar M, Björk J, Bennet L.Eur J Public Health. 2025 Apr 17:ckaf030. doi: 10.1093/eurpub/ckaf030. Online ahead of print.PMID: 40246290

Identification of immunogenic outer membrane vesicle vaccine antigen components using a meningococcal protein microarray.

Ramirez-Bencomo F, Thistlethwaite A, Viviani V, Bartolini E, Pizza M, Biolchi A, Muzzi A, Delany I, Awanye AM, Chang CM, Borrow R, Derrick JP.Vaccine. 2025 Apr 19;53:126953. doi: 10.1016/j.vaccine.2025.126953. Epub 2025 Mar 4.PMID: 40043411

An insight into control strategies against bovine tropical tick (Rhipicephalus microplus) in context to acaricide resistance.

Dehuri M, Mohanty B, Rath PK, Mishra B.Med Vet Entomol. 2025 Apr 24. doi: 10.1111/mve.12808. Online ahead of print.PMID: 40270192

Vaccines for preventing infections in adults with solid tumours.

Hirsch C, Zorger AM, Baumann M, Park YS, Bröckelmann PJ, Mellinghoff S, Monsef I, Skoetz N, Kreuzberger N.Cochrane Database Syst Rev. 2025 Apr 16;4(4):CD015551. doi: 10.1002/14651858.CD015551.pub2.PMID: 40237463

Feasibility, Acceptability, and Effectiveness of a Smartphone App to Increase Pretransplant Vaccine Rates: Usability Study.

Feldman AG, Beaty BL, Moore SL, Bull S, Wilson K, Atkinson KM, Bell C, Denize KM, Kempe A.JMIR Form Res. 2025 Apr 15;9:e68855. doi: 10.2196/68855.PMID: 40237553

An adolescent presenting with IgA nephropathy and persistent decreased kidney function after COVID-19 vaccination during follow-up for asymptomatic hematuria: a clinicopathological study.

Morisawa K, Takahashi T, Matsuoka K, Hashiguchi A, Yamanaka M, Hamada R, Honda M.CEN Case Rep. 2025 Apr 13. doi: 10.1007/s13730-025-00989-0. Online ahead of print.PMID: 40221577

Tropis needle-free injector for fractional-dose IPV administration: A pilot study for integration into routine immunization services in Cuba.

Resik S, Lopez Cavestany R, Tejeda A, Díaz M, García G, Alemañy N, Mesa I, Rivero M, Fonseca M, Hong LH, Morales D, Más I, García D, Mach O.Vaccine. 2025 Apr 11;52:126903. doi: 10.1016/j.vaccine.2025.126903. Epub 2025 Feb 22.PMID: 39987881

A Reverse Vaccinology and Immunoinformatic Approach for the Designing of a Novel mRNA Vaccine Against Stomach Cancer Targeting the Potent Pathogenic Proteins of Helicobacter pylori.

Barua A, Masum MHU, Mahdeen AA.Bioinform Biol Insights. 2025 Apr 16;19:11779322251331104. doi: 10.1177/11779322251331104. eCollection 2025.PMID: 40290636

Next generation pneumococcal vaccines for children and adults.

Menendez R, Garces-Sanchez M.Semin Respir Crit Care Med. 2025 Apr 16. doi: 10.1055/a-2588-6965. Online ahead of print.PMID: 40239956

Yeast-Derived Manganese and Zinc Metal-Organic Framework Composite as a Vaccine Adjuvant for Enhanced Humoral and Cellular Immune Responses.

Zheng L, Wang Z, Liu H, Wang N, Liu J, Ma M, Jia X, Qian M, Liu Y, Li M, Wei Z, Xiang Y.ACS Nano. 2025 Apr 28. doi: 10.1021/acsnano.5c04365. Online ahead of print.PMID: 40293251

Fish vaccines promote blood cell transcriptional remodeling in Atlantic salmon against pathogens.

Leal Y, Valenzuela-Muñoz V, Gallardo-Escárate C.Fish Shellfish Immunol. 2025 Apr 19;162:110356. doi: 10.1016/j.fsi.2025.110356. Online ahead of print.PMID: 40258434

COVID-19 vaccination rates among pregnant women in France: A nationwide cohort study.

Bernard C, Drouin J, Le Vu S, Botton J, Semenzato L, Bertrand M, Jabagi MJ, Miranda S, Dray-Spira R, Weill A, Zureik M.Vaccine. 2025 Apr 19;53:127070. doi: 10.1016/j.vaccine.2025.127070. Epub 2025 Apr 4.PMID: 40186994

A phase 2/3 trial to investigate the safety and immunogenicity of monovalent Omicron JN.1-adapted BNT162b2 COVID-19 vaccine in adults 18 years old.

Diya O, Gayed J, Lowry FS, Ma H, Bangad V, Mensa F, Zou J, Xie X, Hu Y, Cutler M, Belanger T, Cooper D, Xu X, Koury K, Türeci Ö, Şahin U, Swanson KA, Modjarrad K, Anderson AS, Gurtman A, Kitchin N.Vaccine. 2025 Apr 11;52:126869. doi: 10.1016/j.vaccine.2025.126869. Epub 2025 Feb 24.PMID: 39999538

CoVimmune COVID-19 Immunity Calculator: Web Application Development and Validation Study.

Slotkin R, Kyriakides TC, Yu V, Chen X, Kundu A, Gupta S.JMIR Form Res. 2025 Apr 22;9:e59467. doi: 10.2196/59467.PMID: 40262279

Design and application of expression constructs for FMDV serotype O structural proteins.

Zaher MR, El-Husseini DM, El-Husseiny MH, El Amir AM, Hagag NM, Tammam RH.Biotechnol Lett. 2025 Apr 21;47(3):44. doi: 10.1007/s10529-025-03583-7.PMID: 40259087

Modeling Reemergence of Vaccine-Eliminated Infectious Diseases Under Declining Vaccination in the US.

Kiang MV, Bubar KM, Maldonado Y, Hotez PJ, Lo NC.JAMA. 2025 Apr 24:e256495. doi: 10.1001/jama.2025.6495. Online ahead of print.PMID: 40272967

Effectiveness of rBS/WC cholera vaccine against bacterial infectious diarrhea: A test-negative study on children aged 2-6 years in Guangzhou China.

Long Q, Wang H, He Q, Liu W, Zhang C, Zhang Z, Luo L.Vaccine. 2025 Apr 27;56:127139. doi: 10.1016/j.vaccine.2025.127139. Online ahead of print.PMID: 40294478

Re-imagining combination vaccines for travel medicine.

McGuinness SL, Clemens SAC, Clemens R, Chen LH, Damme P, Steffen R.J Travel Med. 2025 Apr 18:taaf033. doi: 10.1093/jtm/taaf033. Online ahead of print.PMID: 40249308

Shigella humoral immunity during the first 2 years of life in children from endemic areas.

Ndungo E, Bhaumik U, Liang Y, Chen WH, Travassos MA, Tapia MD, Kotloff KL, Levine MM, Pasetti MF.mBio. 2025 Apr 16:e0055525. doi: 10.1128/mbio.00555-25. Online ahead of print.PMID: 40237475

The intricate interplay among microbiota, mucosal immunity, and viral infection in the respiratory tract.

Li X, Chen M, Chen T, Xie L, Luo Q, Fan X, Yin Y, Meng S, Jin Z, He Y, Wen Y.J Transl Med. 2025 Apr 29;23(1):488. doi: 10.1186/s12967-025-06433-2.PMID: 40301955

Assessing Prevalence and Regional Disparities in Zero-Dose Immunization Among Children Aged 12-23 Months in Somalia.

Halane S, Ahmed A, Ahmed MM, Hersi MD, Sani J.J Epidemiol Glob Health. 2025 Apr 14;15(1):59. doi: 10.1007/s44197-025-00395-w.PMID: 40227511

Immunoinformatics based designing of a multi-epitope cancer vaccine targeting programmed cell death ligand 1.

Mahafujul Alam SS, Mir SA, Samanta A, Nayak B, Ali S, Hoque M.Sci Rep. 2025 Apr 11;15(1):12420. doi: 10.1038/s41598-025-87063-y.PMID: 40216819

Group IIC self-splicing intron-derived novel circular RNA vaccine elicits superior immune response against RSV.

Sun Z, Lu L, Liu L, Liang R, Zhang Q, Liu Z, An J, Liu Q, Wu Q, Wei S, Zhang L, Peng W.Front Immunol. 2025 Apr 11;16:1574568. doi: 10.3389/fimmu.2025.1574568. eCollection 2025.PMID: 40292280

Pan-vaccinomics strategy for developing a universal multi-epitope vaccine against endocarditis-related pathogens.

Chao P, Zhang X, Zhang L, Ma W, Wang D, Yang A, Chen X.Front Immunol. 2025 Apr 11;16:1524128. doi: 10.3389/fimmu.2025.1524128. eCollection 2025.PMID: 40292293

In Silico Design and Characterization of a Multiepitope Vaccine Candidate Against Brucella canis Using a Reverse Vaccinology Approach.

Arriagada V, Osorio A, Carrera-Naipil C, Villacis-Aguirre CA, Escobar C, Morales N, Villa D, Mardones L, Pérez D, Jara M, Molina RE, Ferrari Í, Azocar S, Gómez LA, Oñate ÁA.J Immunol Res. 2025 Apr 15;2025:6348238. doi: 10.1155/jimr/6348238. eCollection 2025.PMID: 40265107

Incorporating vaccines into vaccination schedules around the world: A scoping review.

de Melo Araújo AC, Oliveira TM, Souza JFA, da Fonseca Victer TN, Rangel PSC, Duarte CK, da Silva TPR, Matozinhos FP, Fernandes EG.Vaccine. 2025 Apr 17;54:127132. doi: 10.1016/j.vaccine.2025.127132. Online ahead of print.PMID: 40250066

Indirect Comparison of PCV20 Immunogenicity with PCV10 in Pediatric 3 + 1 and 2 + 1 Schedules.

Dunne EM, Struwig VA, Lowe W, Wilson CH, Perdrizet JE, Tamimi N, Hayford K, Jodar L, Gessner BD, Theilacker C.Infect Dis Ther. 2025 Apr 14. doi: 10.1007/s40121-025-01151-0. Online ahead of print.PMID: 40227558

Replacing Mycophenolate Mofetil by Everolimus in Kidney Transplant Recipients to Increase Vaccine Immunogenicity: Results of a Randomized Controlled Trial.

Messchendorp AL, Zaeck LM, Bouwmans P, van den Broek DAJ, Frölke SC, Geers D, Imhof C, Malahe SRK, Schmitz KS, Reinders J, Visscher FE, Baan CC, Bemelman FJ, Gansevoort RT, GeurtsvanKessel CH, Hemmelder MH, Hilbrands LB, Källmark H, Kapetanovic MC, Kho MML, de Vries APJ, van Zuilen AD, Reinders ME, van Baarle D, de Vries RD, Sanders JF; RECOVAC Collaborators.Clin Infect Dis. 2025 Apr 15:ciaf107. doi: 10.1093/cid/ciaf107. Online ahead of print.PMID: 40231961

Chiral Aluminum Oxyhydroxide Supraparticles as Adjuvants.

Li Z, Qu A, Xu C, Kuang H, Xu L, Sun M.Adv Mater. 2025 Apr 16:e2504458. doi: 10.1002/adma.202504458. Online ahead of print.PMID: 40237037

Modifying the glycosylation profile of SARS-CoV-2 spike-based subunit vaccines alters focusing of the humoral immune response in a mouse model.

Renner TM, Stuible M, Rossotti MA, Rohani N, Cepero-Donates Y, Sauvageau J, Deschatelets L, Dudani R, Harrison BA, Baardsnes J, Koyuturk I, St Michael F, Hill JJ, Hemraz UD, Lenferink AEG, Tanha J, Fernandes

B, Roldao A, McCluskie MJ, Akache B, Durocher Y.Commun Med (Lond). 2025 Apr 11;5(1):111. doi: 10.1038/s43856-025-00830-w.PMID: 40217109

Safety of LAIV Vaccination in Asthma or Wheeze: A Systematic Review and GRADE Assessment.

Bandell A, Giles L, Cervelo Bouzo P, Sibbring GC, Maniaci J, Wojtczak H, Sokolow AG.Pediatrics. 2025 Apr 24:e2024068459. doi: 10.1542/peds.2024-068459. Online ahead of print.PMID: 40268297

mRNA vaccines for prostate cancer: A novel promising immunotherapy.

Tang Y, Yi X, Ai J.Biochim Biophys Acta Rev Cancer. 2025 Apr 25:189333. doi: 10.1016/j.bbcan.2025.189333. Online ahead of print.PMID: 40288658

Prevalence, Screening, and Parental Awareness of Oral Human Papillomavirus in Pediatric Populations (HOPE Project): Findings from a Cross-Sectional Pilot Study.

Panzarella V, Campisi G, Capra G, Sucato A, D'Arpa V, Minacapilli G, La Mantia G, Maniscalco L, Bazzano M, Consiglio E, Giuliana G.J Clin Med. 2025 Apr 18;14(8):2808. doi: 10.3390/jcm14082808.PMID: 40283638

Fluorescence-barcoded cell lines stably expressing membrane-anchored influenza neuraminidases.

Finney J, Kuraoka M, Song S, Watanabe A, Liang X, Liao D, Moody MA, Walter EB, Harrison SC, Kelsoe G.Vaccine. 2025 Apr 21;56:127157. doi: 10.1016/j.vaccine.2025.127157. Online ahead of print.PMID: 40262372

Multi-epitope microsphere vaccine modified immunological efficacy against LMBV in largemouth bass (Micropterus salmoides).

Jiang FY, Xia JY, Jia YJ, Zhu B.Virology. 2025 Apr 18;608:110553. doi: 10.1016/j.virol.2025.110553. Online ahead of print.PMID: 40279807

Did inequalities in COVID-19 vaccination resolve over time? Insights from the Canadian Community Health Survey.

Baysac DJ, Guay M, Chen R, Dubé È, MacDonald SE, Driedger SM, Gilbert NL.Vaccine. 2025 Apr 27;56:127153. doi: 10.1016/j.vaccine.2025.127153. Online ahead of print.PMID: 40294479

Vaccination burnout impedes the compliance with multiple-dose administration of vaccines.

Fan X, Zhao Y, Zhang X, Li S, Wu F, Cui M, Ye Y, Duoji W, Jiang S, Yuan J, Sun C.Sci Rep. 2025 Apr 17;15(1):13269. doi: 10.1038/s41598-025-97959-4.PMID: 40246920

A phase 3 study of 20-valent pneumococcal conjugate vaccine in healthy toddlers previously vaccinated in infancy with 13-valent pneumococcal conjugate vaccine.

Martinón-Torres F, Martinez SN, Kline MJ, Drozd J, Trammel J, Peng Y, Giardina PC, Gruber WC, Watson W, Bickham K, Tamimi N.Vaccine. 2025 Apr 19;53:126931. doi: 10.1016/j.vaccine.2025.126931. Epub 2025 Mar 12.PMID: 40081152

Building HPV vaccine confidence through codesigned interventions with and for healthcare workers in Nigeria: protocol for a pilot cluster randomised controlled trial.

Herzig van Wees S, Bakare AA, Akinsola KO, Salako J, Bakare D, Gobbo E, Hanson C, Falade AG, King C.BMJ Open. 2025 Apr 22;15(4):e098308. doi: 10.1136/bmjopen-2024-098308.PMID: 40262957

A novel tolerogenic antigen-specific vaccine induces VISTA-enriched regulatory T cells and protects against arthritis in DRB1*04:01 mice.

Romero-Castillo L, Pandey RK, Xu B, Beusch CM, Oliveira-Coelho A, Zeqiraj K, Svensson C, Xu Z, Luo H, Sareila O, Sabatier P, Ge C, Cheng L, Urbonaviciute V, Krämer A, Lindgren C, Haag S, Viljanen J, Zubarev RA, Kihlberg J, Linusson A, Burkhardt H, Holmdahl R.Mol Ther. 2025 Apr 24:S1525-0016(25)00313-2. doi: 10.1016/j.ymthe.2025.04.034. Online ahead of print.PMID: 40285352

Development of invasive non-typhoidal Salmonella conjugate vaccines and their evaluation in a trivalent formulation with typhoid conjugate vaccine.

An SJ, Yang JS, Chae MH, Woo JS, Kang YE, Ganapathy R, Pansuriya RK, Choi JA, Yoon YK, Lee E, Lee SB, Pandey G, Lee JW, Lee JS, Bae SH, Kweon SW, Kim SJ, Seon SH, Kim JH, Song M.Vaccine. 2025 Apr 11;52:126913. doi: 10.1016/j.vaccine.2025.126913. Epub 2025 Feb 27.PMID: 40020336

Low vaccination rates and awareness status in patients with rheumatoid arthritis: a nationwide cross-sectional survey study.

Kirik A, Şahin N, Baykul M, Bodur H, Güler T, Çevik R, Uğur S, Durmaz Y, Karahan AY, Devrimsel G, Öz N, Kaya MN, Çağlar Y, Duruöz MT, Nas K.Rheumatol Int. 2025 Apr 22;45(5):116. doi: 10.1007/s00296-025-05870-y.PMID: 40261375

Long-term immune response after SARS-CoV2 vaccination in solid organ transplant recipients.

Bonazzetti C, Toschi A, Gibertoni D, Caroccia N, Di Chiara M, Vituliano S, Lanna F, Croci A, Tazza B, Amicucci A, Morelli MC, Comai G, Salvaterra E, Potena L, Viale P, Giannella M, Lazzarotto T.BMC Infect Dis. 2025 Apr 25;25(1):606. doi: 10.1186/s12879-024-10377-1.PMID: 40281454

Penmenvy - a second pentavalent meningococcal vaccine.

[No authors listed]Med Lett Drugs Ther. 2025 Apr 14;67(1726):57-59. doi: 10.58347/tml.2025.1726a.PMID: 40254727

Immmunoinformatics-based design of T and B-cell multi-epitope vaccine to combat Borrelia burgdorferi infection.

Chen Z, Huang X, Zhu L, Li B, Wang Y, Wu H, Peng L, Ma W, Zhong L, Yang R, Ma W, Gao L, Wu X, Song J, Yang J, Bao R, Zheng Z, Luo S, Liu A, Bao F.Int J Biol Macromol. 2025 Apr 18:143347. doi: 10.1016/j.ijbiomac.2025.143347. Online ahead of print.PMID: 40254200

Safety and immunogenicity of a virus-like particle Chikungunya virus vaccine.

Marques ETA, Burke DS.Lancet. 2025 Apr 19;405(10487):1314-1315. doi: 10.1016/S0140-6736(25)00571-9.PMID: 40253088

Unexpected hypereosinophilia after Sinopharm vaccination: a case report.

Dalfardi B, Rad NK, Mohammad Alizade TM, Edalatifard M, Asadi S, Rahimi B.BMC Infect Dis. 2025 Apr 22;25(1):583. doi: 10.1186/s12879-025-10990-8.PMID: 40264004

Collaborative influenza vaccine innovation centers (CIVICs) program.

Singleton KL, Post DJ, Augustine AD, Ison MG.Vaccine. 2025 Apr 25;54:127118. doi: 10.1016/j.vaccine.2025.127118. Online ahead of print.PMID: 40286588

New Advances in the Development and Design of *Mycobacterium tuberculosis* Vaccines: Construction and Validation of Multi-Epitope Vaccines for Tuberculosis Prevention.

Barazani O, Erdos T, Chowdhury R, Kaur G, Venketaraman V.Biology (Basel). 2025 Apr 13;14(4):417. doi: 10.3390/biology14040417.PMID: 40282282

Effect of text message reminders to improve paediatric immunisation rates: a randomised controlled quality improvement project.

Rosen K, Krelle H, King WC, Klapheke N, Pina P, Anderman J, Chung A, Mendoza F, Bagheri A, Stadelman J, Tsuruo S, Horwitz LI.BMJ Qual Saf. 2025 Apr 17;34(5):339-348. doi: 10.1136/bmjqs-2024-017893.PMID: 39762025

Detoxification techniques for bacterial toxins: A pathway to effective toxoid vaccines.

Esmaeilnejad-Ahranjani P, Shahali Y, Dadar M.Toxicon. 2025 Apr 17;260:108365. doi: 10.1016/j.toxicon.2025.108365. Online ahead of print.PMID: 40246205

Highlights of *Toxoplasma gondii* research papers published in *Parasitology* in the last 5 decades: personal perspective.

Dubey JP.Parasitology. 2025 Apr 11:1-8. doi: 10.1017/S0031182025000186. Online ahead of print.PMID: 40213951

Corrigendum to "The potential impact of increased recombinant zoster vaccine coverage on the burden of herpes zoster among adults aged 50-59 years" [Vaccine 41 (37) (23 August 2023) 5360-5367].

Singer D, Salem A, Stempniewicz N, Ma S, Poston S, Curran D.Vaccine. 2025 Apr 11;52:126805. doi: 10.1016/j.vaccine.2025.126805. Epub 2025 Feb 26.PMID: 40014980

Re-adenylation by TENT5A enhances efficacy of SARS-CoV-2 mRNA vaccines.

Krawczyk PS, Mazur M, Orzeł W, Gewartowska O, Jeleń S, Antczak W, Kasztelan K, Brouze A, Matylla-Kulińska K, Gumińska N, Tarkowski B, Owczarek EP, Affek K, Turowski P, Tudek A, Sroka M, Śpiewla T, Kusio-Kobiałka M, Wesołowska A, Nowis D, Golab J, Kowalska J, Jemielity J, Dziembowski A, Mroczek S.Nature. 2025 Apr 16. doi: 10.1038/s41586-025-08842-1. Online ahead of print.PMID: 40240603

An inactivated bivalent vaccine effectively protects Carassius auratus against Aeromonas caviae and Aeromonas veronii.

Gao D, Tao L, Lu H, Suo T, Xiong J, Shan X, Zhang D, Dong H, Li R.Sci Rep. 2025 Apr 21;15(1):13694. doi: 10.1038/s41598-025-87958-w.PMID: 40258818

Harnessing Nanotechnology in HIV Therapy: Exploring Molecular Pathogenesis and Treatment Strategies with Special Reference to Chemotherapy and Immunotherapy.

Ash K, Dev A.Microb Pathog. 2025 Apr 21:107625. doi: 10.1016/j.micpath.2025.107625. Online ahead of print.PMID: 40268149

Bioinspired Membrane-Based Cancer Vaccines for Immunotherapy: Progress and Perspectives.

Miao Y, Ge J, Zheng L, Liu G.Small. 2025 Apr 21:e2412679. doi: 10.1002/smll.202412679. Online ahead of print.PMID: 40255117

Intestinal mucosal transcriptomic responses of Asian seabass (Lates calcarifer) vaccinated with an oral hydrogel-encapsulated multivalent Vibrio antigen following Vibrio spp. infection.

Kumwan B, Meachasompop P, Thompson KD, Thangsunan P, Buncharoen W, Thangsunan P, Srisapoome P, Uchuwittayakul A.Comp Biochem Physiol Part D Genomics Proteomics. 2025 Apr 14;55:101512. doi: 10.1016/j.cbd.2025.101512. Online ahead of print.PMID: 40252617

Poliovirus shedding after sequential immunization of Sabin-strain inactivated polio vaccines and oral attenuated polio vaccines.

Fu Y, Ma R, Zhao Z, Mo Z, Ying Z, Li J, Ye H, Li G, Liu X, Liang J, Ping L, Li J, Tao J, Yang Q, Wei D, Yi L, Chen H, Wang J, Jiang R, Yu L, Cai W, Yang W, Yue L, Xie M, Yin Q, Pu J, Hong C, Cai L, Deng Y, Wen J, Ma Y, Gao N, Wang X, Liao H, Ji Q, Ji G, Hu W, Gu Q, He X, Chu H, Fu Y, Zhou J, Wen Y, Yang X, Li C, Shi L, Zhao T, Huang T, Yang J.NPJ Vaccines. 2025 Apr 23;10(1):81. doi: 10.1038/s41541-025-01134-9.PMID: 40268956

The barriers and facilitators of herpes zoster vaccination intentions of urban residents in China: a qualitative study.

Yuan B, Long C, Wang M, Maitland E, Nicholas S, Qin X, Zhao W, Zhu D, He P.Glob Health Res Policy. 2025 Apr 18;10(1):19. doi: 10.1186/s41256-025-00413-1.PMID: 40247411

Factors associated with measles vaccine immunogenicity in children at University Teaching Hospitals, Lusaka, Zambia.

Gardner PN, Hangoma J, Sialubanje C, Chipoya M, Lamba L, Mwenechanya M, Chilyabanyama R, Kasonde M, Simwaba D, Kapina M, Young S, Mwangilwa K, Chilengi R, Fwemba I.PLOS Glob Public Health. 2025 Apr 23;5(4):e0003954. doi: 10.1371/journal.pgph.0003954. eCollection 2025.PMID: 40267112

Immunological analysis of LC16m8 vaccine: preclinical and early clinical insights into mpox.

Kobiyama K, Utsumi D, Kaku Y, Sasaki E, Yasui F, Okamura T, Onodera T, Tobuse AJ, Sakkour A, Amiry AF, Hayashi T, Temizoz B, Liu K, Negishi H, Toyama-Sorimachi N, Kohara M, Sawasaki T, Takagi J, Sato K, Takahashi Y, Yasutomi Y, Ishii KJ.EBioMedicine. 2025 Apr 15;115:105703. doi: 10.1016/j.ebiom.2025.105703. Online ahead of print.PMID: 40239465

Integrated serological surveillance for neglected tropical diseases, vaccine-preventable diseases, and arboviruses in Samoa, 2018.

Lawford HLS, Mayfield HJ, Sam FA, Viali S, Kamu T, Thomsen R, Lau CL.Sci Rep. 2025 Apr 12;15(1):12667. doi: 10.1038/s41598-025-96769-y.PMID: 40221582

Safety profile of self-amplifying mRNA SARS-CoV-2 vaccine ARCT-154 in adults: a pooled phase 1/2/3 randomized clinical study.

Ho NT, Smolenov I, Thi Le Tran L, Nguyen VT, Ta VT, Nguyen TV, Pham HN, Van Pham AT, Luong QC, Van Chu M, Ngoc Dang MT, Nguyen TT, Le VTT, Trinh QV, Van Nguyen T, Nguyen AN, Pham HT, Dao GD, Baccarini C, Nnah E, Hawkes A, Parker S, Verhoeven C, Walson JL, Nguyen XH.Expert Rev Vaccines. 2025 Dec;24(1):299-312. doi: 10.1080/14760584.2025.2487542. Epub 2025 Apr 12.PMID: 40195167

Testing an experimental vaccine during a public health emergency: Lessons from a Peruvian case.

Lanata CF, Ochoa TJ, Bancalari EM, Baylor NW, Edwards K, Faden RR, Madhi SA, Nohynek H, Weijer C.Vaccine. 2025 Apr 24;56:127176. doi: 10.1016/j.vaccine.2025.127176. Online ahead of print.PMID: 40279924

Functionalized Poly(ethylene Glycol) Diacrylate Scaffolds for *In Situ* Immunomodulation of Dendritic Cells Targeting Melanoma Tumor.

Dalal N, Dhandapani H, Ingle A, Sharma D, Tayalia P.ACS Biomater Sci Eng. 2025 Apr 14;11(4):2396-2407. doi: 10.1021/acsbiomaterials.4c02036. Epub 2025 Mar 6.PMID: 40048381

Techniques and Strategies for Engineering Vaccine Adjuvants: A Comprehensive Review.

Sharma S, Chauhan R, Negar Q, Sharma P.Curr Drug Discov Technol. 2025 Apr 25. doi: 10.2174/0115701638351666250405070745. Online ahead of print.PMID: 40289987

Evaluation of mRNA Transfection Reagents for mRNA Delivery and Vaccine Efficacy via Intramuscular Injection in Mice.

Kim J, Yang J, Heo S, Poo H.ACS Appl Bio Mater. 2025 Apr 22. doi: 10.1021/acsabm.5c00424. Online ahead of print.PMID: 40263125

Pneumococcal Carriage in the Sahel Region of Burkina Faso before a 13-Valent Pneumococcal Conjugate Vaccination Campaign.

Zoma RL, Childs L, Ouedraogo I, Sawadogo G, Tarbangdo TF, Zoma A, Sanou S, Bicaba B, Sanou S, Akhter F, Ouattara M, Verani JR, McGee L, Kobayashi M, Aké HF.Am J Trop Med Hyg. 2025 Apr 22:tpmd240746. doi: 10.4269/ajtmh.24-0746. Online ahead of print.PMID: 40262564

Severe COVID-19 and inactivated vaccine in diabetic patients with SARS-CoV-2 infection.

Yang Y, Wei F, Qu D, Xu X, Wu C, Zhou L, Liu J, Zhu Q, Wang C, Yan W, Zhao X.Chin Med J (Engl). 2025 Apr 23. doi: 10.1097/CM9.0000000000003577. Online ahead of print.PMID: 40264377

Antibiotic-induced gut microbiome perturbation alters the immune responses to the rabies vaccine.

Feng Y, de Jong SE, Oliveira APBN, Samaha H, Yang F, Hu M, Wang Y, Beydoun N, Xie X, Zhang H, Kazmin D, Fang Z, Zou J, Gewirtz AT, Boyd SD, Hagan T, Rouphael N, Pulendran B.Cell Host Microbe. 2025 Apr 15:S1931-3128(25)00126-X. doi: 10.1016/j.chom.2025.03.015. Online ahead of print.PMID: 40252648

Characterizing TLR4 agonist EmT4 as an anti-Mycobacterium tuberculosis vaccine adjuvant.

Larsen SE, Rais M, Reese VA, Ferede D, Pecor T, Kaur S, Nag D, Smytheman T, Gray SA, Carter D, Baldwin SL, Coler RN.Immunohorizons. 2025 Apr 26;9(6):vlaf014. doi: 10.1093/immhor/vlaf014.PMID: 40285479

"Polish mothers and cervical cancer prophylaxis. What do they know and what attitude do they have towards HPV vaccination?".

Matusiak K, Bumbuliene Z.J Pediatr Adolesc Gynecol. 2025 Apr 12:S1083-3188(25)00239-6. doi: 10.1016/j.jpag.2025.04.002. Online ahead of print.PMID: 40228695

Hepatitis B virus: Prevalence, vaccination coverage and immune responses to immunization among healthcare workers at Muhimbili National Hospital.

Orotta M, Munseri P, Massawe RV, Orotta GM, Ebrahim A, Kisali EP, Kajaja S, Shayo B, Meda A.PLoS One. 2025 Apr 16;20(4):e0321623. doi: 10.1371/journal.pone.0321623. eCollection 2025.PMID: 40238849

Understanding caregivers' and community influencers' perspectives on the barriers to childhood immunisation in Northern Nigerian States with public-private partnerships in routine immunisation programme.

Etim EE, Odiachi A, Dougherty L, Alabi M, Adetunji A, Adedimeji A.BMC Public Health. 2025 Apr 21;25(1):1471. doi: 10.1186/s12889-025-22710-7.PMID: 40259314

COVID-19 vaccination knowledge, attitudes, and practices within a majority Hispanic/Latino pediatric healthcare system.

Gonzalez SL, Sarik DA, Dean-Olmsted E, Salyakina D.J Pediatr Nurs. 2025 Apr 16:S0882-5963(25)00097-1. doi: 10.1016/j.pedn.2025.03.020. Online ahead of print.PMID: 40246617

What nudges you to take a vaccine? Understanding behavioural drivers of COVID-19 vaccinations using large-scale experiments in the G-7 countries.

Savani MM, Banerjee S, Hunter A, John P, Koenig R, Lee-Whiting B, Loewen P, McAndrews J, Nyhan B.Health Psychol Behav Med. 2025 Apr 16;13(1):2490550. doi: 10.1080/21642850.2025.2490550. eCollection 2025.PMID: 40248162

Mitigating host microRNA interference to enhance mRNA vaccine efficacy in public health interventions.

Xu T, Lin Z, Yu Y, Irfan M, Ahmed M, Septriana M, Sumantri TZC, Amalia AW, Zheng B.Infect Dis Poverty. 2025 Apr 27;14(1):32. doi: 10.1186/s40249-025-01308-6.PMID: 40289130

Economic evaluation of PCV21 in vaccine-naive adults aged 19-64 years with underlying medical conditions in the United States.

Yi Z, Elbasha EH, Owusu-Edusei K.J Med Econ. 2025 Apr 24:1-14. doi: 10.1080/13696998.2025.2496070. Online ahead of print.PMID: 40270275

The role of health systems in shaping vaccine decisions: Insights from Italy, Mexico, the United Kingdom, and the United States.

Arsenault C, Ravishankar S, Lewis T, Armeni P, Croke K, Doubova SV, McKee M, Tarricone R, Kruk ME.Vaccine. 2025 Apr 16;54:127134. doi: 10.1016/j.vaccine.2025.127134. Online ahead of print.PMID: 40245768

Heat-inactivated Mycobacterium bovis and P22PI protein immunocomplex: Two candidates for use as immunostimulants of innate immune response.

Agulló-Ros I, Burucúa MM, Cheuquepán FA, Domínguez M, Sevilla IA, Martínez R, Plá N, Risalde MA, Marin MS.Vet Microbiol. 2025 Apr 21;305:110527. doi: 10.1016/j.vetmic.2025.110527. Online ahead of print.PMID: 40279721

Strengthening health security through routine vaccination policy: A comprehensive analysis of childhood vaccination laws across 194 countries.

Weets CM, Wilson R, Swadley H, Katz R.Vaccine. 2025 Apr 15;54:127121. doi: 10.1016/j.vaccine.2025.127121. Online ahead of print.PMID: 40239299

Correction to "Recombinant Spike protein vaccines coupled with adjuvants that have different modes of action induce protective immunity against SARS-CoV-2" [Vaccine 22 (41) (2023) 6025-6035].

Chiba S, Halfmann PJ, Iida S, Hirata Y, Sato Y, Kuroda M, Armbrust T, Spyra S, Suzuki T, Kawaoka Y.Vaccine. 2025 Apr 11;52:126880. doi: 10.1016/j.vaccine.2025.126880. Epub 2025 Feb 21.PMID: 39985967

Development and efficacy of a novel mRNA cocktail for the delivery of African swine fever virus antigens and induction of immune responses.

Hu X, Liu C, Rcheulishvili N, Wang Y, Xiong T, Xie F, Wang X, Chen R, Wang PG, He Y.Microbiol Spectr. 2025 Apr 29:e0290924. doi: 10.1128/spectrum.02909-24. Online ahead of print.PMID: 40298440

Transcriptomic profiles of Crandell-Rees feline kidney cells infected with Varicellovirus felidalpha-1 (FHV-1) field and vaccine strains.

Kwan E, Legione AR, Hartley CA, Devlin JM.Virol J. 2025 Apr 16;22(1):102. doi: 10.1186/s12985-025-02722-w.PMID: 40241206

Liver-stage malaria transcriptomes: what you don't know can kill you.

Duffy PE, Tsuji M.Trends Parasitol. 2025 Apr 22:S1471-4922(25)00097-2. doi: 10.1016/j.pt.2025.04.003. Online ahead of print.PMID: 40263025

Second booster doses of adenoviral- and mRNA-based COVID-19 vaccines increase protection against COVID-19 hospitalization: Final analysis from the REFORCO-Brazil real-world effectiveness study during Omicron.

Meeraus W, Postema A, Gray CM, Lee A, Maria AS, Furtado BE, Conde-Sousa E, Ouwens M, Valverde DA, da Cunha CA, Barbosa AN, Corte C, Taylor S.Vaccine. 2025 Apr 19;53:126955. doi: 10.1016/j.vaccine.2025.126955. Epub 2025 Mar 10.PMID: 40068393

Macrophages direct location-dependent recall of B cell memory to vaccination.

Dhenni R, Hoppé AC, Reynaldi A, Kyaw W, Handoko NT, Grootveld AK, Keith YH, Bhattacharyya ND, Ahel HI, Telfser AJ, McCorkindale AN, Yazar S, Bui CHT, Smith JT, Khoo WH, Boyd M, Obeid S, Milner B, Starr M, Brilot F, Milogiannakis V, Akerman A, Aggarwal A, Davenport MP, Deenick EK, Chaffer CL, Croucher PI, Brink R, Goldstein LD, Cromer D, Turville SG, Kelleher AD, Venturi V, Munier CML, Phan TG.Cell. 2025 Apr 28:S0092-8674(25)00407-6. doi: 10.1016/j.cell.2025.04.005. Online ahead of print.PMID: 40300604

Stabilized dengue virus 2 envelope subunit vaccine redirects the neutralizing antibody response to all E-domains.

Thiono DJ, Samaras D, Phan TTN, Zhu DR, Shah RP, Castillo I, Forsberg LJ, Premkumar L, Baric RS, Tian S, Kuhlman B, de Silva AM.J Virol. 2025 Apr 16:e0022925. doi: 10.1128/jvi.00229-25. Online ahead of print.PMID: 40237498

Optimising human rabies vaccine supply chains: A modelling study.

Luka MM, Ferguson EA, Rees E, Hoffu H, Changalucha J, Lushasi K, Sikana L, Mutunga M, Thumbi SM, Hampson K.Vaccine. 2025 Apr 21:127108. doi: 10.1016/j.vaccine.2025.127108. Online ahead of print.PMID: 40274463

Computational design of a glycosylated multi-epitope vaccine against HAsV-1 and HAsV-2 astrovirus for acute gastroenteritis.

Naveed M, Ali A, Aziz T, Ali N, Rehman HM, Khan AA, Ul Haq T, El Hadi Mohamed RA, Al-Asmari F, Alwethaynani MS, Al-Joufi FA, Fallatah D.Sci Rep. 2025 Apr 22;15(1):13954. doi: 10.1038/s41598-025-96989-2.PMID: 40263512

Immunogenicity, safety, and tolerability of a beta-glucan-CpG-adjuvanted respiratory syncytial virus vaccine in Japanese healthy participants aged 60 to 80 years: A phase 2, randomized, double-blind, dose-finding study.

Nakayama T, Iwanami M, Sakakibara S, Mukasa R, Ota A, Furihata K, Honda Y, Ishii KJ.Hum Vaccin Immunother. 2025 Dec;21(1):2489900. doi: 10.1080/21645515.2025.2489900. Epub 2025 Apr 21.PMID: 40257186

Live-attenuated Mycobacterium tuberculosis vaccine, MTBVAC, in adults with or without M tuberculosis sensitisation: a single-centre, phase 1b-2a, double-blind, dose-escalation, randomised controlled trial.

Luabeya AKK, Rozot V, Imbratta C, Ratangee F, Shenje J, Tameris M, Mendelsohn SC, Geldenhuys H, Fisher M, Musvosvi M, Young C, Mulenga H, Bilek N, Mabwe S, Jelsbak IM, Rodríguez E, Puentes E, Doce J, Aguilo N, Martin C, Pillay C, Tait D, Russell M, Van Der Merve A, Rutkowski K, Hunt D, Ginsberg A, Scriba TJ, Hatherill M; A050 team.Lancet Glob Health. 2025 Apr 15:S2214-109X(25)00046-4. doi: 10.1016/S2214-109X(25)00046-4. Online ahead of print.PMID: 40250461

Dual protection against grouper Rana-Iridovirus (GIV-R) and nervous necrosis virus (NNV) by novel GIV-R(-delta51)(-)NNV(-CP) chimeric vaccine candidates.

Ding S, Li Y, Sun Q, Zhu Z, Yu F, Weng S, He J, Dong C.Fish Shellfish Immunol. 2025 Apr 18;162:110358. doi: 10.1016/j.fsi.2025.110358. Online ahead of print.PMID: 40254083

Live-attenuated pandemic H1N1 influenza vaccines expressing computationally optimized broadly reactive antigens (COBRAs) are immunogenic and protective in mice and ferrets.

Chen PL, Richardson RA, Rovito S, Yang G, Writt HN, Ojha C, DeBeauchamp J, Crumpton JC, Woodard K, Penaflor M, Kercher L, Webby RJ, Sautto GA, Ross TM, Russell CJ.Vaccine. 2025 Apr 19;53:127090. doi: 10.1016/j.vaccine.2025.127090. Epub 2025 Apr 4.PMID: 40186991

Health impact and economic evaluation of the Expanded Program on Immunization in China from 1974 to 2024: a modelling study.

Wang C, Lai X, Abbas K, Pouwels KB, Zhang H, Jit M, Fang H.Lancet Public Health. 2025 Apr 23:S2468-2667(25)00039-8. doi: 10.1016/S2468-2667(25)00039-8. Online ahead of print.PMID: 40286808

High Frequency of Chronic Urticaria Following an Investigational HIV-1 BG505 MD39.3 Trimer mRNA Vaccine in a Phase 1, Randomized, Open-Label Clinical Trial (HVTN 302).

Riddler SA, Moodie Z, Clark J, Yen C, Allen M, Furch BD, Lu H, Grant S, Mondal K, Anderson M, Maenza J, Lemos MP, Woodward Davis AS, Walsh SR, Sobieszczyk ME, Frank I, Goepfert P, Stephenson KE, Baden LR, Tieu HV, Keefer MC, McElrath MJ, Kublin JG, Corey L.Ann Intern Med. 2025 Apr 29. doi: 10.7326/ANNALS-24-02701. Online ahead of print.PMID: 40294415

Herpes zoster vaccination coverage and factors associated among adults aged 40 and older in China: A population-based survey.

Xia Y, Zhu W, Shi Z, Shen Y, Cui C, Ai J, Yuan Y, Ye X, Zhu D, He P.Vaccine. 2025 Apr 19;56:127122. doi: 10.1016/j.vaccine.2025.127122. Online ahead of print.PMID: 40253789

Quantification of residual DTT by high-performance anion-exchange chromatography coupled with pulsed amperometric detection.

Rajendar B, Reddy MVNJ, Adusumilli M, Matur RV.J Chromatogr B Analyt Technol Biomed Life Sci. 2025 Apr 16;1259:124609. doi: 10.1016/j.jchromb.2025.124609. Online ahead of print.PMID: 40286484

Targeting immunogenic proteins of Zika virus for the prediction of immunoinformatics-driven circular mRNA vaccine model.

Iftikhar M, Khattak A, Ahmad N, Khan A, Ul-Haq Z.In Silico Pharmacol. 2025 Apr 25;13(2):72. doi: 10.1007/s40203-025-00362-0. eCollection 2025.PMID: 40291442

Assessing and bridging the gap in vaccinology education: insights from Romanian medical universities.

Neculau AE, Șovăilă S, Dumitra G, Pistol A, Rogozea L, Lăcătuș A.BMC Med Educ. 2025 Apr 26;25(1):621. doi: 10.1186/s12909-025-07184-w.PMID: 40287749

Longitudinal population analysis of Plasmodium falciparum apical membrane antigen-1 in Indian field isolates.

Narang G, Hawadak J, Jakhan J, Yadav K, Singh V.Acta Trop. 2025 Apr 24:107630. doi: 10.1016/j.actatropica.2025.107630. Online ahead of print.PMID: 40286894

Surveillance of psychogenic adverse events following immunization in Zhejiang, China, 2020-2023.

Pan X, Qi X, Chen Y, Liang H.BMC Public Health. 2025 Apr 15;25(1):1410. doi: 10.1186/s12889-025-22615-5.PMID: 40234835

The effect of disease transmission on time-aggregated treatment efficacy estimates: a critical analysis of factors influencing the RTS,S and R21 malaria vaccine phase 3 trials.

Macià D, Pons-Salort M, Moncunill G, Dobaño C.Lancet Infect Dis. 2025 Apr 23:S1473-3099(25)00090-8. doi: 10.1016/S1473-3099(25)00090-8. Online ahead of print.PMID: 40286802

The kinetics of gene expression related to innate and adaptive immunity in the lung and spleen following Newcastle disease virus (NDV) infection in vaccinated broiler chickens employing different vaccination regimes.

Hassanin O, Abdallah F, Mohamed MH, Ahmed MS, Al-Rasheed M, Rashad EM.Vet Microbiol. 2025 Apr 19;305:110525. doi: 10.1016/j.vetmic.2025.110525. Online ahead of print.PMID: 40262238

Streptococcus suis manganese transporter mutant as a live attenuated vaccine: Safety, efficacy, and virulence reversion mechanisms.

Wiebe M, Ingebritson A, Sholeh M, Tichenor C, Visek C, Victoria J, Beck M, Tiwari R, Hardwidge P, Zhu L.Vet Microbiol. 2025 Apr 14;305:110521. doi: 10.1016/j.vetmic.2025.110521. Online ahead of print.PMID: 40239440

Greater Improvements in Vaccination Outcomes Among Black Young Adults With Vaccine-Resistant Attitudes in the United States South Following a Digital Health Intervention: Latent Profile Analysis of a Randomized Control Trial.

Mancuso N, Michaels J, Browne EN, Maragh-Bass AC, Stocks JB, Soberano ZR, Bond CL, Yigit I, Comello MLG, Larsen MA, Muessig KE, Pettifor A, Hightow-Weidman LB, Budhwani H, Stoner MCD.JMIR Public Health Surveill. 2025 Apr 16;11:e67370. doi: 10.2196/67370.PMID: 40239211

Integrating COVID-19 vaccination into routine healthcare: a feasible model for epidemic response at mildmay hospital Uganda.

Ankunda C, Chandini S, Namasambi S, Irene N, Wana L, Nanono V, Musana FL, Mwaka J, Nakubulwa S, Mulebeke R, Karamagi Y.BMC Public Health. 2025 Apr 15;25(1):1406. doi: 10.1186/s12889-025-22733-0.PMID: 40234854

A promising endeavor against human cytomegalovirus: Predominant epitopes-based recombinant subunit vaccine RHEc(IE1/pp65/pp150).

Li Z, Jiang S, Liu W, Yang X, Liu F, Li X, Li J, Yu M, Wei Z, Wang B, Qian D.Virulence. 2025 Apr 25:2497903. doi: 10.1080/21505594.2025.2497903. Online ahead of print.PMID: 40277436

Post-vaccinal seronegative autoimmune encephalitis following recombinant zoster vaccination in two immunocompetent patients.

Madani TA, Khoja AA, Abuzinadah AR, Abbas GM, Alotaibi AA, Alshehri ZI, Madani ST.J Infect Chemother. 2025 Apr 18;31(6):102713. doi: 10.1016/j.jiac.2025.102713. Online ahead of print.PMID: 40254183

Assessment of mpox awareness, attitudes, and vaccination intent among the United States public following an outbreak of mpox clade Ib in Africa.

Melchinger H, Khemsara M, Ahmed N, Belgaumi SM, Kuppalli K, Omer SB, Malik AA.Vaccine. 2025 Apr 24;56:127141. doi: 10.1016/j.vaccine.2025.127141. Online ahead of print.PMID: 40279927

A novel MF59 and CpG1018 adjuvant combination enhances the humoral and cellular immune responses against a truncated varicella-zoster viral glycoprotein E.

Yang J, Hu X, Chen X, Li W, Yin Q, Xiong Y, An Y, Li H, Liu Z.Immunol Lett. 2025 Apr 14;275:107025. doi: 10.1016/j.imlet.2025.107025. Online ahead of print.PMID: 40239819

Moredun in funding push for louping ill vaccine.

Loeb J.Vet Rec. 2025 Apr 19;196(8):291. doi: 10.1002/vetr.5440.PMID: 40249333

Evaluating University and Surrounding Area Factors Causing Variability in COVID-19 Vaccine Rates Among United States Universities.

Lu E, Leopold J, Lee J.Disaster Med Public Health Prep. 2025 Apr 23;19:e101. doi: 10.1017/dmp.2025.84.PMID: 40264222

Protection against *N. gonorrhoeae* induced by OMV-based meningococcal vaccines are associated with cross-species directed humoral and cellular immune responses.

Zhu W, Waltmann A, Little MB, Connolly KL, Matthias KA, Thomas KS, Gray MC, Sikora AE, Criss AK, Bash MC, Macintyre AN, Jerse AE, Duncan JA.Front Immunol. 2025 Apr 11;16:1539795. doi: 10.3389/fimmu.2025.1539795. eCollection 2025.PMID: 40292302

Safety of MMR vaccination evaluated in children with food and gelatin allergy in Iran.

Shokri M, Movahedi M, Parvaneh N, Gharagozlou M, Sadat Mousavi Khorshidi M, Mahdavi M, Alizadeh F.BMC Pediatr. 2025 Apr 23;25(1):318. doi: 10.1186/s12887-025-05666-w.PMID: 40269814

Antibody function predicts viral control in newborn monkeys immunised with an influenza virus HA stem nanoparticle.

Crofts KF, Holbrook BC, Page CL, Gillespie RA, D'Agostino RB Jr, Sangesland M, Ornelles DA, Kanekiyo M, Alexander-Miller MA.Nat Commun. 2025 Apr 22;16(1):3785. doi: 10.1038/s41467-025-59149-8.PMID: 40263387

Angola's cholera crisis and the struggle for effective outbreak control amid vaccine shortfalls.

Abdulrahim A, Rafael VA, Gulumbe BH.Trop Doct. 2025 Apr 24:494755251337254. doi: 10.1177/00494755251337254. Online ahead of print.PMID: 40275718

How did Moroccan immigrants in the Netherlands decide with regard to their COVID-19 vaccine uptake? An exploratory qualitative study.

Hamdiui N, de Vries M, Stein ML, Crutzen R, Hintaran P, van den Muijsenbergh M, Timen A.BMC Infect Dis. 2025 Apr 25;25(1):602. doi: 10.1186/s12879-025-11003-4.PMID: 40281479

Knowledge, willingness, and hesitancy toward recommended vaccinations among pregnant and post-partum women: A cross-sectional survey in Italy.

Miraglia Del Giudice G, Angelillo S, Sansone V, Della Polla G, Angelillo IF; Collaborative Working Group; Collaborative Working Group:.Hum Vaccin Immunother. 2025 Dec;21(1):2485653. doi: 10.1080/21645515.2025.2485653. Epub 2025 Apr 17.PMID: 40243216

Development and in vivo evaluation of a SARS-CoV-2 inactivated vaccine using high hydrostatic pressure.

Brandolini M, Rocculi P, Morbarigazzi M, De Pascali AM, Dirani G, Zannoli S, Lelli D, Lavazza A, Battioni F, Grumiro L, Semprini S, Guerra M, Gatti G, Dionisi L, Ingletto L, Colosimo C, Marzucco A, Montanari MS, Cricca M, Scagliarini A, Sambri V.NPJ Vaccines. 2025 Apr 25;10(1):83. doi: 10.1038/s41541-025-01136-7.PMID: 40280930

Non-Compromised Efficacy of the First Commercial Ready-to-Use Genotype 2d Porcine Circovirus Type 2 and Mycoplasma hyopneumoniae Vaccine.

Pálmai N, Széplaki NÁ, Molnár B, Smits H, Krejci R, Kiss I.Viruses. 2025 Apr 11;17(4):554. doi: 10.3390/v17040554.PMID: 40284997

Unraveling the Nano World in Paracoccidioidomycosis: Promising Applications of Nanotechnology in Diagnosis, Treatment, and Vaccines: A Mini Review.

Cervini R, Centa A, Locatelli C, Dal Pont GC, Assolini JP.Curr Microbiol. 2025 Apr 28;82(6):264. doi: 10.1007/s00284-025-04251-9.PMID: 40295332

Immunogenicity of MVA-BN vaccine deployed as mpox prophylaxis: a prospective, single-centre, cohort study and analysis of transcriptomic predictors of response.

Drennan PG, Provine NM, Harris SA, Otter A, Hollett K, Cooper C, De Maeyer RPH, Nassanga B, Ateere A, Pudjohartono MF, Peng Y, Chen JL, Jones S, Fadzillah NHM, Grifoni A, Sette A, Satti I, Murray SM, Rowe C, Mandal S, Hallis B, Klenerman P, Dong T, Richards D, Fullerton J, McShane H, Coles M.Lancet Microbe. 2025 Apr 23:101045. doi: 10.1016/j.lanmic.2024.101045. Online ahead of print.PMID: 40286799

"Trusted Messengers Felt Like They Made All the Difference": The Role of Community-Based Organizations in Supporting Parents' Access to a Communication Infrastructure Relevant to COVID-19 Pediatric Vaccines.

Clark D, Okker-Edging K, Tan ASL.Health Commun. 2025 Apr 29:1-9. doi: 10.1080/10410236.2025.2492882. Online ahead of print.PMID: 40297961

Differential immunogenicity in people living with HIV with varying CD4 levels after bivalent mRNA COVID-19 booster vaccination.

Hiranburana N, Thippamom N, Avihingsanon A, Wacharapluesadee S, Ubolyam S, Kerr SJ, Tan CW, Wang LF, Putcharoen O.PLoS One. 2025 Apr 29;20(4):e0317940. doi: 10.1371/journal.pone.0317940. eCollection 2025.PMID: 40299994

India's universal immunization program: A review of successes, challenges, and future directions.

Jacob John T, Kompithra RZ.Indian J Med Microbiol. 2025 Apr 17;55:100854. doi: 10.1016/j.ijmmb.2025.100854. Online ahead of print.PMID: 40252840

Knowledge, attitudes, barriers and uptake rate of influenza virus vaccine among children from 6 months to 5 years of age in Jordan: a multicentric cross-sectional study.

Abu-Helalah M, Abdelhadi NN, Al-Hanaktah M, Asfour A, Harahsheh M, Abu Mahfouz R, Altarawneh S, Almadani M, Al Mughrabi L.Ital J Pediatr. 2025 Apr 17;51(1):123. doi: 10.1186/s13052-025-01935-7.PMID: 40247341

Advax-adjuvanted inactivated influenza vaccine provides accelerated protection of mice via early induction of an influenza-specific IgM response.

Honda-Okubo Y, Sakala IG, Li L, Bielefeldt-Ohmann H, Lebedin YS, Petrovsky N.Vaccine. 2025 Apr 23;56:127144. doi: 10.1016/j.vaccine.2025.127144. Online ahead of print.PMID: 40273588

Health Decisions Under Uncertainty: The Roles of Conspiracy Beliefs and Institutional Trust.

Atad E.Behav Sci (Basel). 2025 Apr 14;15(4):524. doi: 10.3390/bs15040524.PMID: 40282145

Bridging the gap in pneumonia prevention: Qualitative insights on vaccine implementation from health leaders in middle-income countries.

Weeks R, Dhaliwal BK, Huber J, Nabia S, Al-Shaikh AF, Chokephaibulkit K, Fernando L, Baghagho E, Shet A.PLOS Glob Public Health. 2025 Apr 23;5(4):e0004473. doi: 10.1371/journal.pgph.0004473. eCollection 2025.PMID: 40267080

Isolation and characterization of GI-19/L1148-like infectious bronchitis virus in China.

Li H, Han J, Wang B, Han Z, Liu S.Virus Res. 2025 Apr 14;356:199576. doi: 10.1016/j.virusres.2025.199576. Online ahead of print.PMID: 40233840

An open-label study on the safety and immunogenicity of a PD-1-enhanced DNA vaccine used as a T cell booster for COVID-19.

Wong YC, Hang Ho DH, Zhou R, Zhang R, Woo KF, Cheng WY, Wang T, Du Y, Polly Pang KP, Tai WK, Jin X, Chen Z, Ngai Hung IF.EBioMedicine. 2025 Apr 16;115:105699. doi: 10.1016/j.ebiom.2025.105699. Online ahead of print.PMID: 40245494

Evacuation Decision-Making Post-COVID-19 Vaccine Availability: Implications of Compound Hazards in Puerto Rico and the US Virgin Islands.

Hartnett JJ, Dunn EA, Collins JM, Maas Cortes L, Jones R.Disaster Med Public Health Prep. 2025 Apr 15;19:e94. doi: 10.1017/dmp.2025.85.PMID: 40230243

Clinical Impact and Cost-Effectiveness of Updated 2023/24 COVID-19 mRNA Vaccination in High-Risk Populations in the United States.

Joshi K, Dronova M, Paterak E, Nguyen VH, Kopel H, Mansi J, Van de Velde N, Beck E.Infect Dis Ther. 2025 Apr 15. doi: 10.1007/s40121-025-01128-z. Online ahead of print.PMID: 40232338

Integrating routine immunization into COVID-19 vaccination improve coverage but could create equity issues: evidence from Niger State, Nigeria.

Okagbue HI, Jimoh A, Samuel O, Ikwe H, Isiaka S, Okoye I, David J, Adegoke Z.BMC Public Health. 2025 Apr 22;25(1):1490. doi: 10.1186/s12889-025-22796-z.PMID: 40264059

Safety and efficacy of a Vero-adapted live attenuated vaccine candidate for African swine fever.

Suh TY, Park JH, Hwang SY, Park CR, Kim JE, Park JY, Kim YJ, Kang HE, Kim DY, Choi JG.Vaccine. 2025 Apr 24;56:127172. doi: 10.1016/j.vaccine.2025.127172. Online ahead of print.PMID: 40279925

Multivalent H3 COBRA-based influenza vaccine elicits enhanced immune response in a pre-immune elderly ferret model.

Zhang X, Shi H, Ross TM.Vaccine. 2025 Apr 22;56:127156. doi: 10.1016/j.vaccine.2025.127156. Online ahead of print.PMID: 40267617

Maintaining the battle against vaccine-preventable neurological diseases in the United States.

Mateen FJ.J Neurovirol. 2025 Apr 22. doi: 10.1007/s13365-025-01256-9. Online ahead of print.PMID: 40261582

The novel antigen, lipopolysaccharide export protein LptH, protects mice against Pseudomonas aeruginosa acute pneumonia in monovalent and multivalent vaccines.

Jurado-Martín I, Tomás-Cortázar J, Rezk N, Hou Y, Saínz-Mejías M, Bruce R, Startseva M, Ma C, McClean S.Vaccine. 2025 Apr 21;56:127145. doi: 10.1016/j.vaccine.2025.127145. Online ahead of print.PMID: 40262371

Incentives for COVID-19 Vaccination: Implications for Public Health Preparedness in a New Pandemic.

Beronja B, Dotlic J, Jeremic Stojkovic V, Cummins P, Milic M, Gazibara T.Disaster Med Public Health Prep. 2025 Apr 23;19:e104. doi: 10.1017/dmp.2025.106.PMID: 40264230

Sporadic detection of vaccine-derived poliovirus type 2 using next-generation sequencing in Canadian wastewater in August of 2022.

Seo GE, Mandes R, Wright ND, Hawkins JP, Landgraff A, Lidder R, Mohammed U, Mangat CS, Michel AS, Fafard J, Hole D, Tyler AD, Vlok M, Grudeski E, Booth TF, Majer A.Sci Rep. 2025 Apr 15;15(1):12913. doi: 10.1038/s41598-025-92912-x.PMID: 40234509

Effects of a mild inflammatory challenge on cytokines and sickness behavior: A randomized controlled trial using the influenza vaccine.

Jolink TA, Feldman MJ, Antenucci NM, Cardenas MN, West TN, Nakamura ZM, Muscatell KA.Brain Behav Immun. 2025 Apr 14;128:429-439. doi: 10.1016/j.bbi.2025.04.018. Online ahead of print.PMID: 40239903

Preparation of two kinds of immunocastration vaccines and their immune effects on male goats.

Pan F, Guo Y, Cheng P, Qian W, Han M, Yi Q, Xie H, Cao M, Li Y, Jia Y, Cui J, Gong X, Zhu Z, Fang F, Ling Y, Li Y, Li J, Liu Y.Anim Biosci. 2025 Apr 11. doi: 10.5713/ab.24.0811. Online ahead of print.PMID: 40241592

Optimization of the preparation method of inactivated intact virus particle vaccine for COVID-19.

Ohno M, Sekiya T, Obeng-Kyeremeh R, Handabile C, Haruta M, Nomura N, Kawakita T, Shingai M, Kida H.Vaccine. 2025 Apr 24;56:127173. doi: 10.1016/j.vaccine.2025.127173. Online ahead of print.PMID: 40279928

Development of a chicken egg yolk antibody (IgY) could effectively prevent and treat goose astrovirus infection.

Xu P, Lu J, Chen L, Chen X, Lu Z, Ye M, Wang X, Ouyang K, Yin Y, Chen Y, Wei Z, Huang W, Qin Y.Vaccine. 2025 Apr 22;56:127167. doi: 10.1016/j.vaccine.2025.127167. Online ahead of print.PMID: 40267615

Population preventable fraction of total multiple sclerosis risk associated with non-specific effects of vaccinations against hepatitis B virus and influenza A and B viruses in a middle eastern country.

Akhtar S, Muzaini HE, Al-Hashel JY, Alroughani R.Neurol Sci. 2025 Apr 22. doi: 10.1007/s10072-025-08187-7. Online ahead of print.PMID: 40261520

A SpA+LukAB vaccine targeting Staphylococcus aureus evasion factors restricts infection in two minipig infection models.

Poolman JT, Torres VJ, Missiakas D, Welten SPM, Fernandez J, DuMont AL, O'Keeffe A, Konstantinov SR, Morrow B, Burghout P, Grijpstra J, van Beers MMC, Anish C, Beurret M, Geurtsen J, Rood PML, Koeberling O, Shi M, van den Dobbelsteen GPJM.NPJ Vaccines. 2025 Apr 20;10(1):78. doi: 10.1038/s41541-025-01119-8.PMID: 40254611

The association between healthcare access and shingles vaccination among older adults in Virginia, United States.

Iwu CD, Shrestha P, Littman AJ, Hood JE.PLoS One. 2025 Apr 15;20(4):e0316429. doi: 10.1371/journal.pone.0316429. eCollection 2025.PMID: 40233035

Demographic disparities, temporal trends, and geographic patterns of HPV vaccination on Long Island, New York: A comprehensive analysis of immunization registry data (2012-2023).

Ding Z, Deng J, Mermelstein L, Nemesure B, Osborne T, Wang F.Hum Vaccin Immunother. 2025 Dec;21(1):2487383. doi: 10.1080/21645515.2025.2487383. Epub 2025 Apr 15.PMID: 40235165

Distinct evolutionary regimes across domains of the Plasmodium falciparum CSP gene.

Al-Kaisy R, Bhatt S, Duchêne DA.Sci Rep. 2025 Apr 18;15(1):13507. doi: 10.1038/s41598-025-98456-4.PMID: 40251276

Impact of CD4+ T cell and TCR repertoires on SARS-CoV-2-Specific antibody responses in PLWH following COVID-19 vaccination.

Ding C, Chen Q, Shi Y, Liu J, Huang L, Wei W, Chen F, He H, Wu J, Gao Y, Yu Y.J Immunol. 2025 Apr 15:vkae040. doi: 10.1093/jimmun/vkae040. Online ahead of print.PMID: 40235093

Vaccine preventable diseases are making "dangerous comeback," health leaders warn.

Mahase E.BMJ. 2025 Apr 25;389:r823. doi: 10.1136/bmj.r823.PMID: 40280626

Isolation and characterization of GI-19/L1148-like infectious bronchitis virus in China.

Li H, Han J, Wang B, Han Z, Liu S.Virus Res. 2025 Apr 14;356:199576. doi: 10.1016/j.virusres.2025.199576. Online ahead of print.PMID: 40233840

The GI-19 dominant genotype of infectious bronchitis virus in chickens from 2021 to 2023 in Sichuan province is frequently involved in recombination events.

Wang F, Yan W, Liu L, Shu D, Yang X, Xu W.Virology. 2025 Apr 18;608:110543. doi: 10.1016/j.virol.2025.110543. Online ahead of print.PMID: 40286468

Strengthening the EU Health Technology Assessment Regulation: Integrating National Immunization Technical Advisory Groups for Comprehensive Vaccine Assessments.

Beekman J, de Roo A, Wolters S, Marapin R, Gurgel do Amaral G, Dvortsin E, Quilici S, de Waure C, Petelos E, Postma M, Viceré A.J Mark Access Health Policy. 2025 Apr 18;13(2):16. doi: 10.3390/jmahp13020016. eCollection 2025 Jun.PMID: 40276092

Recent perspectives in clinical development of malaria vaccines.

Feehan J, Plebanski M, Apostolopoulos V.Nat Commun. 2025 Apr 15;16(1):3565. doi: 10.1038/s41467-025-58963-4.PMID: 40234440

Estimating the waning effectiveness of COVID-19 vaccines from population-level surveillance data in Hong Kong.

Chen H, Huang X, Wang C, Cowling BJ, Tsang TK.J Infect Dis. 2025 Apr 18:jiaf207. doi: 10.1093/infdis/jiaf207. Online ahead of print.PMID: 40247690

Pityriasis rubra pilaris following Shingrix vaccine: a report of two cases.

Han R, Wang CY, Simpson I, Lai FYX, Lee S.Clin Exp Dermatol. 2025 Apr 26:llaf188. doi: 10.1093/ced/llaf188. Online ahead of print.PMID: 40286324

Herpes zoster vaccination: Primary care provider knowledge, attitudes, and practices.

Stempniewicz N, Davenport E, Wang J, Sweeney C.Hum Vaccin Immunother. 2025 Dec;21(1):2488093. doi: 10.1080/21645515.2025.2488093. Epub 2025 Apr 18.PMID: 40249278

The validity of test-negative design for assessment of typhoid conjugate vaccine protection: comparison of estimates by different study designs using data from a cluster-randomised controlled trial.

Feng S, Zhang Y, Khanam F, Voysey M, Pitzer VE, Qadri F, Clemens JD, Pollard AJ, Liu X.Lancet Glob Health. 2025 Apr 16:S2214-109X(25)00056-7. doi: 10.1016/S2214-109X(25)00056-7. Online ahead of print.PMID: 40252689

Experimental Efficacy of an Alphavirus Vectored RNA Particle Vaccine Against Porcine Parainfluenza Virus-1 in Conventional Weaned Pigs.

Welch M, Krueger K, Zhang J, Piñeyro P, Mogler M, Strait E, Gauger P.Viruses. 2025 Apr 14;17(4):565. doi: 10.3390/v17040565.PMID: 40285006

Effectiveness of a single-dose mass dengue vaccination in Cebu, Philippines: Final results of a 5-year case-control study.

Agrupis KA, Crisostomo MV, Daag JV, Sarol J Jr, Lopez MHJ, Florendo KL, de Guzman C, Sy AK, Yurango Z, Dandan O, Balabat J, Deen J, Ylade M.Vaccine. 2025 Apr 24;56:127142. doi: 10.1016/j.vaccine.2025.127142. Online ahead of print.PMID: 40279922

deltaFleQ of Aeromonas hydrophila generated as a live attenuated vaccine in common carp (Cyprinus carpio).

Fang Q, Liu Z, Wang K, Liu B, Nissa MU, Che J, Bao B.Fish Shellfish Immunol. 2025 Apr 20;162:110361. doi: 10.1016/j.fsi.2025.110361. Online ahead of print.PMID: 40262689

Risk of Highly Pathogenic Avian Influenza A/H5N1 Virus in Pediatrics.

Healy CM.J Pediatric Infect Dis Soc. 2025 Apr 28:piaf035. doi: 10.1093/jpids/piaf035. Online ahead of print.PMID: 40289622

Screening Natural Cholesterol Analogs to Assemble Self-Adjuvant Lipid Nanoparticles for Antigens Tagging Guided Therapeutic Tumor Vaccine.

Liang S, Gao S, Fu S, Yuan S, Liu J, Liang M, Han L, Zhang Z, Liu Y, Zhang N.Adv Mater. 2025 Apr 26:e2419182. doi: 10.1002/adma.202419182. Online ahead of print.PMID: 40285566

Effects of Concurrent Administration of BVDV Modified Live Viral Vaccine and RB51 on Immune Responses in Cattle.

Crawford LS, Falkenberg S, Olsen SC, Boggiatto PM.Viruses. 2025 Apr 11;17(4):553. doi: 10.3390/v17040553.PMID: 40284996

The RV144 Trial Set Back HIV-1 Vaccine Development but Might Still Yield Useful Information.

Moore JP.Curr HIV Res. 2025 Apr 18. doi: 10.2174/011570162X355671250402083527. Online ahead of print.PMID: 40257015

Longitudinal Evaluation of Metabolic Benefits of Inactivated COVID-19 Vaccination in Diabetic Patients in Tianjin, China.

Wang J, Wang Z, Sun B, Chen L.Med Sci Monit. 2025 Apr 27;31:e947450. doi: 10.12659/MSM.947450.PMID: 40287793

'Top of queue' text messages increased COVID-19 vaccine uptake in England.

[No authors listed]Nat Hum Behav. 2025 Apr 16. doi: 10.1038/s41562-025-02166-w. Online ahead of print.PMID: 40240640

The genetic, biophysical and immunological studies of a self-adjuvanted protein nanoparticle.

Lyu JH, Liou GG, Wang M, Kan MC.Vaccine. 2025 Apr 21;56:127087. doi: 10.1016/j.vaccine.2025.127087. Online ahead of print.PMID: 40262373

Holding hands to halt malaria: stronger together through heterotypic antibody interactions.

Bunnik EM, Bol S, Ippolito GC.Trends Parasitol. 2025 Apr 22:S1471-4922(25)00098-4. doi: 10.1016/j.pt.2025.04.004. Online ahead of print.PMID: 40268600

Development of a novel multiepitope vaccine against Menangle virus (MenV) using in-silico approaches by targeting its transmembrane proteins.

Naveed M, Ali A, Aziz T, Fatima N, Amjad S, Fatima F, Khan AA, Alharbi M, Albekairi TH, Alasmari AF.Sci Rep. 2025 Apr 21;15(1):13715. doi: 10.1038/s41598-025-98151-4.PMID: 40258886

[Seroconversion induced by experimental HIV vaccine: a clinical challenge outside clinical trials].

Ferra Murcia S, Segura Díaz M, Collado Romacho AR.Aten Primaria. 2025 Apr 21;57(11):103247. doi: 10.1016/j.aprim.2025.103247. Online ahead of print.PMID: 40262256

Risk of new-onset polymyalgia rheumatica following COVID-19 vaccination in South Korea: a self-controlled case-series study.

Woo J, Kim MK, Lim H, Kim JH, Jung H, Kim HA, Shin JY; CoVaSC Investigators.RMD Open. 2025 Apr 28;11(2):e005138. doi: 10.1136/rmdopen-2024-005138.PMID: 40295118

The urease E subunit vaccine stimulate the immune response versus Helicobacter pylori in animal model.

Nikzad-Chaleshtori M, Asgari M, Rezaeizadeh G, Aali F, Doosti A.Immunol Res. 2025 Apr 22;73(1):74. doi: 10.1007/s12026-025-09625-6.PMID: 40259189

An HIV Vaccine in the Era of Twice-Yearly Lenacapavir for PrEP - Essential or Irrelevant?

Jatt LP, Mgodi NM, Buchbinder SP, Gray GE, Kublin JG.N Engl J Med. 2025 Apr 24;392(16):1561-1563. doi: 10.1056/NEJMp2415893. Epub 2025 Apr 19.PMID: 40260855

Dimethylamino-based synthetic lipidoid nanoparticles for selective mRNA delivery to splenic antigen-presenting cells.

Liang X, Zhang C, Yin Q, Bai Y, Li J, Qiu M.J Control Release. 2025 Apr 13;382:113737. doi: 10.1016/j.jconrel.2025.113737. Online ahead of print.PMID: 40233831

Cost-effectiveness and public health impact of recombinant zoster vaccine versus no herpes zoster vaccination in selected populations of immunocompromised adults in Canada.

George S, Carrico J, Hicks KA, Loukov D, Ng C, Curran D.BMC Health Serv Res. 2025 Apr 25;25(1):604. doi: 10.1186/s12913-025-12550-x.PMID: 40281614

Advancing regulatory dialogue: In silico models for improved vaccine biomanufacturing - an expert meeting report.

Meln I, Van Molle W, Vélez MP, Abrahamsen G, Brusselmans K, Calvosa E, Cardillo AG, Clénet D, Forestieri C, Gernaey KV, Hoefnagel M, Jorgensen JB, Lebrun P, Natalis L, Nilsson B, Öppling V, Pollinger JC, Rayat ACME, Reem D, Rubbrecht M, Schmölder J, Schofield T, Smith D, Timmins S, von Lieres E, Welin M, Bracewell DG.Vaccine. 2025 Apr 26;56:127170. doi: 10.1016/j.vaccine.2025.127170. Online ahead of print.PMID: 40288086

UK healthcare worker hesitancy on the use of yellow fever vaccine in 'precautionary groups'.

Rodriguez-Valero N, Fletcher R, Simons H, Richards-Zoubir S, Kanagarajah S, Patel D.J Travel Med. 2025 Apr 30:taaf030. doi: 10.1093/jtm/taaf030. Online ahead of print.PMID: 40302049

Toxoplasma cyst wall CST9 elicits an acute-associated humoral response in humans and mice and protects against chronic infection in immunized mice.

Saldarriaga Cartagena AM, Rivera EM, Sánchez-López EF, Formigo PM, Legarralde A, Ganuza A, Alonso AM, Clemente M, Angel SO.Microb Pathog. 2025 Apr 25;205:107638. doi: 10.1016/j.micpath.2025.107638. Online ahead of print.PMID: 40287105

Correction: Immunogenicity and Safety of a Quadrivalent Meningococcal Conjugate Vaccine Versus Nimenrix in Healthy Adolescents: A Randomized Phase IIIb Multicenter Study.

Díez-Domingo J, Simkó R, Icardi G, Chong CP, Zocchetti C, Syrkina O, Bchir S, Bertrand-Gerentes I.Infect Dis Ther. 2025 Apr 24. doi: 10.1007/s40121-025-01150-1. Online ahead of print.PMID: 40268816

HER1 (EGFR) and/or HER2 inclusion potentiates the antitumor effect elicited by a HER3-specific monovalent vaccine.

Bermúdez-Abreut E, Bergado Báez G, Fundora-Barrios T, Arencibia-Perezleo J, Medinilla AL, Chao L, Sánchez Ramírez B.Mol Cancer Ther. 2025 Apr 16. doi: 10.1158/1535-7163.MCT-24-0973. Online ahead of print.PMID: 40237095

Corrigendum to, "Attitudes and beliefs of healthcare providers toward vaccination in the United States: A cross-sectional online survey" [Vaccine (2024) Dec 2 42(26) 126437].

Eiden AL, Drakeley S, Modi K, Mackie DS, Bhatti A, DiFranzo A.Vaccine. 2025 Apr 19;53:127054. doi: 10.1016/j.vaccine.2025.127054. Epub 2025 Apr 2.PMID: 40184635

Purging viral latency by a bifunctional HSV-vectored therapeutic vaccine in chronically SIV-infected macaques.

Wen Z, Li P, Yuan Y, Wang C, Li M, Wang H, Shi M, He Y, Cui M, Chen L, Sun C.Elife. 2025 Apr 23;13:RP95964. doi: 10.7554/eLife.95964.PMID: 40266253

Impact of Human papillomavirus 9-valent vaccine on viral clearance after surgical treatment: A single-center retrospective observational study.

Palumbo M, Lavitola G, Di Filippo C, Foreste V, Granata M, Imperatore O, Ascione M, Della Corte L, Bifulco G.Eur J Obstet Gynecol Reprod Biol. 2025 Apr 20;310:113994. doi: 10.1016/j.ejogrb.2025.113994. Online ahead of print.PMID: 40267822

Repurposing anti-viral subunit and mRNA vaccines T cell immunity for intratumoral immunotherapy against solid tumors.

Sethi SK, Bradley CE, Bialkowski L, Pang YY, Thompson CD, Schiller JT, Çuburu N.NPJ Vaccines. 2025 Apr 25;10(1):84. doi: 10.1038/s41541-025-01131-y.PMID: 40280970

Evaluation of immune responses and protection in Asian seabass (Lates calcarifer Bloch, 1790) against Vibrio vulnificus using immersion and oral nanoemulsion vaccines.

Rodwihok C, Thompson KD, Srisapoome P, Thangsunan P, Thangsunan P, Buncharoen W, Saenphet K, Saenphet S, Meachasompop P, Kumwan B, Tangal JK, Wiratama N, Mai TT, Uchuwittayakul A.Fish Shellfish Immunol. 2025 Apr 18;162:110354. doi: 10.1016/j.fsi.2025.110354. Online ahead of print.PMID: 40254082

Developing, validating and testing non-vaccine-preventable human papillomavirus to control for differences in sexual behaviour when evaluating HPV vaccination.

Dema E, Shing JZ, Checchi M, Beddows S, Liu D, Sierra MS, Haas CB, Soldan K, Field N, Kreimer AR, Sonnenberg P.Cancer Epidemiol Biomarkers Prev. 2025 Apr 21. doi: 10.1158/1055-9965.EPI-24-1775. Online ahead of print.PMID: 40259791

Solvent free production of liposomes as a vaccine adjuvant with a comparative study of different cationic surfactants.

Khalifa AZ, Perrie Y, Shahiwala A.Int J Pharm. 2025 Apr 17;676:125606. doi: 10.1016/j.ijpharm.2025.125606. Online ahead of print.PMID: 40246034

Development of a Peptide-Based Multiepitope Vaccine from the SARS-CoV-2 Spike Protein for Targeted Immune Response Against COVID-19.

Campelo TA, Noronha Souza PF, Brito DMS, Frota CC, Antas PRZ.Protein Pept Lett. 2025 Apr 14. doi: 10.2174/0109298665364226250328084245. Online ahead of print.PMID: 40231512

Comment on "Impact of pre-Omicron COVID-19 vaccine boosters on the risk of Omicron variant infections: A systematic review and meta-regression".

Veldi VDK, Sah R.J Formos Med Assoc. 2025 Apr 14:S0929-6646(25)00177-9. doi: 10.1016/j.jfma.2025.04.008. Online ahead of print.PMID: 40234129

Vaccination of people with solid tumors and diabetes: existing evidence and recommendations. A position statement from a multidisciplinary panel of scientific societies.

Gallo M, Lasagna A, Renzelli V, Morviducci L, Cortellini A, Monami M, Marino G, Gori S, Verzé M, Ragni A, Tuveri E, Sciacca L, D'Oronzo S, Giuffrida D, Natalicchio A, Giorgino F, Marrano N, Zatelli MC, Montagnani M, Felicetti F, Mazzilli R, Fogli S, Franchina T, Argentiero A, Candido R, Perrone F, Aimaretti G, Avogaro A, Silvestris N, Faggiano A.J Endocrinol Invest. 2025 Apr 23. doi: 10.1007/s40618-025-02586-5. Online ahead of print.PMID: 40266540

Sentinel Safety Monitoring System for Adverse Events of Special Interest Associated With Non-NIP Vaccines in Korea.

Hyun H, Heo JY, Choi YJ, Nham E, Yoon JG, Noh JY, Song JY, Kim WJ, Choi WS, Choi MJ, Seo YB, Lee J, Cheong HJ.J Korean Med Sci. 2025 Apr 28;40(16):e152. doi: 10.3346/jkms.2025.40.e152.PMID: 40296829

GMMA decorated with mucin 1 Tn/STn mimetics elicit specific antibodies response and inhibit tumor growth.

Pesce E, Sodini A, Palmieri E, Valensin S, Tinti C, Rossi M, De Rosa A, Fragai M, Papi F, Cordiglieri C, Berti F, Grifantini R, Micoli F, Nativi C.NPJ Vaccines. 2025 Apr 15;10(1):71. doi: 10.1038/s41541-025-01127-8.PMID: 40234452

PCI-DB: a novel primary tissue immunopeptidome database to guide next-generation peptide-based immunotherapy development.

Lemke S, Dubbelaar ML, Zimmermann P, Bauer J, Nelde A, Hoenisch Gravel N, Scheid J, Wacker M, Jung S, Dengler A, Maringer Y, Rammensee HG, Gouttefangeas C, Fillinger S, Bilich T, Heitmann JS, Nahnsen S, Walz JS.J Immunother Cancer. 2025 Apr 15;13(4):e011366. doi: 10.1136/jitc-2024-011366.PMID: 40234091

Effect of heterologous intranasal iNCOVACC® vaccination as a booster to two-dose intramuscular Covid-19 vaccination series: a randomized phase 3 clinical trial.

Akula VR, Bhate AS, Gillurkar CS, Kushwaha JS, Singh AP, Singh C, Pandey AK, K K S, Rai SK, Vadrevu KM; BBV154 Study Group.Commun Med (Lond). 2025 Apr 23;5(1):133. doi: 10.1038/s43856-025-00818-6.PMID: 40269252

Rabies virus large protein-derived T-cell immunogen facilitates rapid viral clearance and enhances protection against lethal challenge in mice.

Bai S, Pan X, Yang T, Gao N, Zhu C, Xia A, Feng M, Zhang M, Zhang X, Xu J.Commun Med (Lond). 2025 Apr 18;5(1):127. doi: 10.1038/s43856-025-00851-5.PMID: 40251380

Safety and Immunogenicity of Poultry Vaccine for Protecting Critically Endangered Avian Species against Highly Pathogenic Avian Influenza Virus, United States.

Katzner TE, Blackford AV, Donahue M, Gibbs SEJ, Lenoch J, Martin M, Rocke TE, Root JJ, Styles D, Cooper S, Dean K, Dvornicky-Raymond Z, Keller D, Sanchez C, Dunlap B, Grier T, Jones MP, Nitzel G, Patrick E, Purcell M, Specht AJ, Suarez DL.Emerg Infect Dis. 2025 Apr 15;31(6). doi: 10.3201/eid3106.241558. Online ahead of print.PMID: 40233764

Corrigendum to Exploring COVID-19 Vaccine Hesitancy Among Stakeholders in African American and Latinx Communities in the Deep South Through the Lens of the Health Belief Model.

[No authors listed]Am J Health Promot. 2025 Apr 29:8901171251340785. doi: 10.1177/08901171251340785. Online ahead of print.PMID: 40296611

Opportunities and challenges for the adoption of novel platform technologies to develop veterinary bacterial vaccines.

Entrican G, Bredell H, Charlier J, Cunningham AF, Jarvis MA, Wood PR, Wren BW, Hope JC.Vaccine. 2025 Apr 14;54:127117. doi: 10.1016/j.vaccine.2025.127117. Online ahead of print.PMID: 40233592

Establishment of a highly sensitive porcine alveolar macrophage cell line for African swine fever virus.

Lu X, Gong X, Sun Y, Gong L, Zhang Y.In Vitro Cell Dev Biol Anim. 2025 Apr 23. doi: 10.1007/s11626-025-01016-3. Online ahead of print.PMID: 40266442

Multi-adjuvant emulsion system stabilized via mannosylated chitosan nanoparticles for subunit vaccine delivery.

Pan Y, Liu S, Zhao H, Yu Z, Qi Y, Huang Y.Int J Biol Macromol. 2025 Apr 16;310(Pt 1):143268. doi: 10.1016/j.ijbiomac.2025.143268. Online ahead of print.PMID: 40250646

Comparison of the serological responses in pigs after oral vaccination against classical swine fever using two different types of bait.

Ortmann S, Lindner T, Meyer D, Wiedemann A, Postel A, Becher P, Vos A.Vet Immunol Immunopathol. 2025 Apr 14;284:110937. doi: 10.1016/j.vetimm.2025.110937. Online ahead of print.PMID: 40245471

Bridging Trust and Collaborative Research in Low-Income Contexts During Public Health Emergencies: A Sierra Leone Case Study.

David I, Jeremiah RD.Health Sci Rep. 2025 Apr 16;8(4):e70701. doi: 10.1002/hsr2.70701. eCollection 2025 Apr.PMID: 40242259

Sustained mTORC1 activation in activated T cells impairs vaccine responses in older individuals.

Lin X, Du Y, Kan S, Chen J, Yin Y, Li L, Chen J, Jiang W, Cao W, Kim C, Chen L, Wang S, Goronzy JJ, Jin J.Sci Adv. 2025 Apr 18;11(16):eadt4881. doi: 10.1126/sciadv.adt4881. Epub 2025 Apr 18.PMID: 40249803

Risk analysis for outpatient experimental infection as a pathway for affordable RSV vaccine development.

Siegal EZ, Schoevers JMH, Terstappen J, Delemarre EM, Johnston SL, van Beek LF, Bogaert D, Chiu C, Diavatopoulos DA, Ferreira DM, Gordon SB, Hayden FG, de Jonge MI, McCall MBB, McShane HI, Minassian AM, Openshaw PJM, Pollard AJ, Sattabongkot J, Read RC, Troelstra A, Viveen MC, Wilder-Smith A, van Wijk M, Bont LJ, Mazur NI.NPJ Vaccines. 2025 Apr 15;10(1):70. doi: 10.1038/s41541-025-01125-w.PMID: 40234435

Meningococcal vaccine 4CMenB elicits a robust cellular immune response that targets but is not consistently protective against Neisseria gonorrhoeae during murine vaginal infection.

Zeppa JJ, Fegan JE, Maiello P, Islam EA, Lee IS, Pham C, Caruso L-L, Gray-Owen SD.mSphere. 2025 Apr 16:e0094024. doi: 10.1128/msphere.00940-24. Online ahead of print.PMID: 40237483

Long term bivalent mRNA vaccine effectiveness against COVID-19 hospitalisations and deaths in Portugal: a cohort study based on electronic health records.

Machado A, Kislaya I, Soares P, Magalhães S, Nunes B; PT-EHR vaccine group.BMC Infect Dis. 2025 Apr 23;25(1):590. doi: 10.1186/s12879-025-10866-x.PMID: 40269729

Nirsevimab immunisation of infants and respiratory syncytial virus (RSV)-associated hospitalisations, Western Australia, 2024: a population-based analysis.

Bloomfield LE, Pingault NV, Foong RE, French S, Morgan JA, Wadia U, Moore HC, Blyth CC, Richmond PC, Armstrong PK, Effler PV.Med J Aust. 2025 Apr 28. doi: 10.5694/mja2.52655. Online ahead of print.PMID: 40293046

Integrated Methodology from Synthesis to *in Vivo* Study that Identifies Nanostructure Shape "Hot Spots" in T Cell Receptor Repertoire.

Ye Y, Huang G, Zhang W, Wu J, Wu J, Li Y, Zhou X, Jia J, Xie Z, Yan B, Dawson KA, Chen J, Wang YF, Yan Y.Nano Lett. 2025 Apr 30;25(17):7003-7011. doi: 10.1021/acs.nanolett.5c00741. Epub 2025 Apr 21.PMID: 40258069

Critical appraisal of: "expression of SARS-CoV-2 spike protein in cerebral arteries: implications for hemorrhagic stroke post-mRNA vaccination".

Mueed A, Shariq A, Ashar M.J Clin Neurosci. 2025 Apr 22;136:111270. doi: 10.1016/j.jocn.2025.111270. Online ahead of print.PMID: 40267596

The Role of Digital Opinion Leaders in Dengue Prevention Through Health Promotion and Public Health Collaboration: Qualitative Semistructured Interview Study.

Green A, Wu S, Di Pasquale A, Pang T.J Med Internet Res. 2025 Apr 25;27:e70997. doi: 10.2196/70997.PMID: 40279576

Tough and waterproof microneedles overcome mucosal immunotolerance by modulating antigen release patterns.

He P, He C, Guo R, Ou Y, Chang Y, Xie Z, Tang X, Xu Y, Zhao Y, Wang H, Guo Z, Bai S, Chen Z, Fan F, Du G, Sun X.J Control Release. 2025 Apr 16;382:113740. doi: 10.1016/j.jconrel.2025.113740. Online ahead of print.PMID: 40250628

Mitochondrial hyperactivity and reactive oxygen species drive innate immunity to the yellow fever virus-17D live-attenuated vaccine.

Muccilli SG, Schwarz B, Shue B, Jessop F, Shannon JG, Larson CL, Hage A, Hong SH, Bohrnsen E, Hsu T, Ashbrook AW, Sturdevant GL, Robertson SJ, Guarnieri JW, Lack J, Wallace DC, Bosio CM, MacDonald MR, Rice CM, Yewdell JW, Best SM.PLoS Pathog. 2025 Apr 21;21(4):e1012561. doi: 10.1371/journal.ppat.1012561. Online ahead of print.PMID: 40258014

Resolution of eyelid and facial cutaneous warts after a single dose of the Human Papillomavirus 9-valent vaccine.

Valentim CCS, Guner ME.J AAPOS. 2025 Apr 16:104208. doi: 10.1016/j.jaapos.2025.104208. Online ahead of print.PMID: 40250598

Inflammatory conditions shape phenotypic and functional characteristics of lung-resident memory T cells in mice.

Schmidt A, Fuchs J, Dedden M, Kocher K, Schülein C, Hübner J, Vieira Antão A, Irrgang P, Oltmanns F, Viherlehto V, Leicht N, Rieker RJ, Geppert C, Appelt U, Zundler S, Schober K, Lapuente D, Tenbusch M.Nat Commun. 2025 Apr 16;16(1):3612. doi: 10.1038/s41467-025-58931-y.PMID: 40240341

Dual roles of influenza B virus neuraminidase mRNA vaccine in enhancing cross-lineage protection by supplementing inactivated split vaccination.

Le CTT, Kim K-H, Raha JR, Bhatnagar N, Pal SS, Grovenstein P, Yeasmin M, Liu R, Wang B-Z, Kang S-M.J Virol. 2025 Apr 23:e0229424. doi: 10.1128/jvi.02294-24. Online ahead of print.PMID: 40265888

COVID-19 vaccine hesitancy among parents of children with systemic lupus erythematosus: a comment.

Daungsupawong H, Wiwanitkit V.Clin Exp Pediatr. 2025 Apr 16. doi: 10.3345/cep.2025.00304. Online ahead of print.PMID: 40241597

Superbug Neisseria gonorrhoeae Infections: The Role of the Moonlighting Protein Glutamate Racemase in Treatment and Prevention.

Adhana S, Jain R, Sahoo S, Thakur S, Pandey A, Mittal A, Kundu B, Chaudhry U.Curr Top Med Chem. 2025 Apr 23. doi: 10.2174/0115680266365593250415101135. Online ahead of print.PMID: 40277049

Correction: Latino Parents' Reactions to and Engagement With a Facebook Group-Based COVID-19 Vaccine Promotion Intervention: Mixed Methods Pilot Study.

González-Salinas AI, Andrade EL, Abroms LC, Gómez K, Favetto C, Gómez VM, Collins KK.JMIR Form Res. 2025 Apr 28;9:e76107. doi: 10.2196/76107.PMID: 40294401

Effects of coronavirus severity and vaccination numbers on postsurgical mortality for elective surgical procedures in the VA population.

Dardir HW, Elsayed AAR, Newman WP, Klug MG, Basson MD.ANZ J Surg. 2025 Apr 15. doi: 10.1111/ans.70107. Online ahead of print.PMID: 40235107

Protein-specific immune response elicited by the Shigella sonnei 1790GAHB GMMA-based candidate vaccine in adults with varying exposure to Shigella.

Randall AZ, Conti V, Nakakana U, Liang X, Teng AA, Di Pasquale AL, Kapulu M, Frenck R Jr, Launay O, Ferruzzi P, Sciré AS, Marchetti E, Obiero C, Pablo JV, Edgar J, Bejon P, Shandling AD, Campo JJ, Yee A, Martin LB, Podda A, Micoli F.mSphere. 2025 Apr 16:e0105724. doi: 10.1128/msphere.01057-24. Online ahead of print.PMID: 40237462

Recurrent Mpox: divergent virulent clades and the urgent need for strategic measures including novel vaccine development to sustain global health security.

Ebede SO, Orabueze IN, Maduakor UC, Nwafia IN, Ohanu ME.BMC Infect Dis. 2025 Apr 15;25(1):536. doi: 10.1186/s12879-025-10896-5.PMID: 40234768

Meeting report: Expert consultation on late arresting replication competent (LARC) malaria sporozoite vaccine research & development.

Mo AX, McGugan G, Pesce JT.Vaccine. 2025 Apr 16;54:127009. doi: 10.1016/j.vaccine.2025.127009. Online ahead of print.PMID: 40245769

HPV16-Expressing Tumors Release Multiple IL-1 Ligands to Orchestrate Systemic Immunosuppression Whose Disruption Enables Efficacy of a Therapeutic Vaccine.

Lecointre M, Guillot J, Marcone R, Ozdoganlar D, Cayatte M, Jaensson Gyllenbäck E, Liberg D, Fournier N, Homicsko K, Hanahan D.Cancer Discov. 2025 Apr 27:OF1-OF26. doi: 10.1158/2159-8290.CD-25-0382. Online ahead of print.PMID: 40287949

The Impact of Influenza on US Working-Age Adults: Exploring the Benefits of the Recombinant Influenza Vaccine.

Torcel-Pagnon L, Coudeville L, Harris RC, Chaves SS.Clin Infect Dis. 2025 Apr 17:ciaf200. doi: 10.1093/cid/ciaf200. Online ahead of print.PMID: 40243673

Understanding occupational and attitudinal factors influencing UK healthcare worker decisions for COVID-19 and influenza vaccination: A cross-sectional survey within SIREN.

Bustamante Q, Sparkes D, Findlater L, Munro K, Lut I, Khawam J, Russell S, Atti A, Foulkes S, Hopkins S, Hall V, Islam J.Vaccine. 2025 Apr 24;56:127160. doi: 10.1016/j.vaccine.2025.127160. Online ahead of print.PMID: 40279923

Fulminant Type 1 Diabetes Mellitus With Concomitant Coxsackievirus B6 Antibody Elevation and RNA-Based COVID-19 Vaccination: A Case Report and Review of the Literature.

Minami H, Furukawa S, Miyake T, Kurokawa K, Sasaki Y, Nakaishi M, Nagamatsu K, Yamago H, Shibata N, Hiasa Y, Matsuura B.Clin Case Rep. 2025 Apr 15;13(4):e70429. doi: 10.1002/ccr3.70429. eCollection 2025 Apr.PMID: 40236311

A Chimeric Virus-Like Particle Vaccine Presenting an Immunodominant Epitope of gB Elicited Potent Neutralizing Antibodies against EBV Infection In Vitro and In Vivo.

Zhong L, Zhang W, Xiao R, He H, Wu Q, Hong J, Zeng MS, Zhao Q, Zheng Q, Chen YX, Zhang X.ACS Appl Mater Interfaces. 2025 Apr 24. doi: 10.1021/acsami.5c00701. Online ahead of print.PMID: 40272901

Antiviral humoral immunity against SARS-CoV-2 omicron JN.1 subvariants induced by JN.1 recombinant protein vaccine.

Uriu K, Kaku Y, Kihara M; Genotype to Phenotype Japan (G2P-Japan) Consortium; Sato K.Vaccine. 2025 Apr 16;54:127129. doi: 10.1016/j.vaccine.2025.127129. Online ahead of print.PMID: 40245765

Off-label use of recombinant adjuvanted Herpes Zoster vaccine in a 10-year-old high-risk patient affected by epidermolysis bullosa: A case report.

Palmieri C, Noviello C, Moscara L, Stefanizzi P, Berti I, Tafuri S, Arbo A.Hum Vaccin Immunother. 2025 Dec;21(1):2494457. doi: 10.1080/21645515.2025.2494457. Epub 2025 Apr 20.PMID: 40254823

Nationwide population-based surveillance of invasive pneumococcal disease in children in Japan (2014-2022): Impact of 13-valent pneumococcal conjugate vaccine and COVID-19 pandemic.

Takeuchi N, Chang B, Ishiwada N, Cho Y, Nishi J, Okada K, Fujieda M, Oda M, Saitoh A, Hosoya M, Ishiguro N, Takahashi K, Ozawa Y, Suga S.Vaccine. 2025 Apr 18;54:127138. doi: 10.1016/j.vaccine.2025.127138. Online ahead of print.PMID: 40252365

Reply to Comment on "COVID-19 Vaccination and Ocular Adverse Events: A Self-Controlled Case Series Study From the Entire South Korean Population".

Hwang S, Kang SW.Am J Ophthalmol. 2025 Apr 26:S0002-9394(25)00204-1. doi: 10.1016/j.ajo.2025.04.026. Online ahead of print.PMID: 40294857

Association of COVID-19 vaccination with relapsed nephrotic syndrome and new onset nephrotic syndrome in children.

Mazza D, Ward E, Makeneni S, Zee J, Laskin B, Denburg M.Pediatr Nephrol. 2025 Apr 22. doi: 10.1007/s00467-025-06778-2. Online ahead of print.PMID: 40261402

Manufacture of Necator americanus as an infectious challenge agent: Accelerating human hookworm vaccine development.

Erwin G, Scholte L, Saes R, Li G, Schellhaas L, Ratnappan R, Pritchard DI, Hawdon J, Diemert D, Bethony JM.Microb Pathog. 2025 Apr 15;204:107592. doi: 10.1016/j.micpath.2025.107592. Online ahead of print.PMID: 40246158

Bivalent mRNA booster vaccination recalls cellular and antibody immunity against antigenically divergent SARS-CoV-2 spike antigens.

Trieu MC, Reynaldi A, Lee WS, Tan HX, Kelly A, Esterbauer R, Cox RJ, Audsley J, Sasadeusz J, Khoury DS, Davenport MP, Cromer D, Wheatley AK, Kent SJ, Juno JA.NPJ Vaccines. 2025 Apr 18;10(1):74. doi: 10.1038/s41541-025-01129-6.PMID: 40251187

A serologic marker attenuated live vaccine protects piglets against highly pathogenic porcine reproductive and respiratory syndrome virus infection.

Zhao J, Duan H, Chen X, Ren B, Zhu Q, Ji P, Chang Y, Sun Y, Zhao Q.Vet Res. 2025 Apr 24;56(1):89. doi: 10.1186/s13567-025-01526-8.PMID: 40275373

Evaluation of the immune effect of foot-and-mouth disease virus-like particles derived from *Pichia Pastoris* on mice and pigs.

Li Z, Bai M, Yin S, Yang Y, Dong H, Teng Z, Sun S, Bao E, Guo H.Front Microbiol. 2025 Apr 14;16:1551395. doi: 10.3389/fmicb.2025.1551395. eCollection 2025.PMID: 40297291

Magnetic sculpture-like tumor cell vaccines enable targeted *in situ* immune activation and potent antitumor effects.

Zhang H, Li QQ, Shi Y, Zhang L, Wang KW, Wu T, Cheng SB, Zhang ZR, Qin LN, Zhao YL, Zhen XT, Ren HR, Du LY, Liu HJ, Sun T.Theranostics. 2025 Apr 13;15(11):5358-5380. doi: 10.7150/thno.107162. eCollection 2025.PMID: 40303352

A neutralizing nanobody-based liquid-phase blocking ELISA to assess the protective potency of Senecavirus A vaccine.

Mu S, Pan S, Dong H, Wu J, Zhang Y, Yin S, Wang J, Wei T, Wen X, Guo H, Sun S.Appl Microbiol Biotechnol. 2025 Apr 23;109(1):102. doi: 10.1007/s00253-025-13492-4.PMID: 40266308

BioStruct-Africa's capacity building workshops as a model for advancing the emerging community of structural biologists in Africa.

Sankhe S, Fofana FG, Heiba W, Ogunyemi OM, Masisi K, Muiruri I, Abaah EA, Tepa A, Fru CT, Johnson JT, Tchuenguia CV, Tatchou-Nebangwa NMT, Tsafack DT, Koloko BL, Kulu-Abi TK, Ngounou I, Sovegnon TSD, Kamga RMN, Kouamo MFM, Getahun YC, Moumbock AFA, Cramer KC, Rüffin NV, Djapgne L, Sliz P, Davis J, Fodje MN, Griese JJ, Nji E.Commun Chem. 2025 Apr 19;8(1):118. doi: 10.1038/s42004-025-01519-w.PMID: 40253564

Re-emergence of Yellow Fever Virus in Brazil: Evidence from Forest and peri-urban Settings.

Dantas Andrade VDG, Ribeiro Adelino TÉ, Fonseca V, Farias Moreno KM, Ribeiro Tomé LM, Pereira LA, de La-Roque DGL, de Filippis AMB, Ramos DG, Ramalho DB, de Lima Furtado KC, Lima Borges GA, Martins LC, Frutuoso LCV, Lamounier LO, Guimarães NR, Sato Barros PMS, de Almeida PS, de Souza da Silva PE, Pinheiro RG, Stabeli RG, da Silva Chagas SM, Pietra Pedroso SHS, Kashima S, Penante SG, de Oliveira MS, da Silva VL, Van Voorhis WC, Holmes EC, Lourenço J, de Melo Iani FC, Jorge Júnior AS, Giovanetti M, Junior Alcantara LC.medRxiv [Preprint]. 2025 Apr 12:2025.04.10.25325467. doi: 10.1101/2025.04.10.25325467.PMID: 40297427

Ferritin and Encapsulin Nanoparticles as Effective Vaccine Delivery Systems: Boosting the Immunogenicity of the African Swine Fever Virus C129R Protein.

Zhang Y, Ru Y, Zhao L, Hao R, Yang Y, Li Y, Zhang R, Jiang C, Zheng H.Viruses. 2025 Apr 11;17(4):556. doi: 10.3390/v17040556.PMID: 40284999

[Elements of misinformation in the public perception of the dengue vaccine in Brazil: an analysis of comments on social media].

Oliveira IM, Pinheiro R, Ortega F, Santana ES.Cad Saude Publica. 2025 Apr 11;41(3):e00097124. doi: 10.1590/0102-311XPT097124. eCollection 2025.PMID: 40243790

Bacillus subtilis supplemented feeding as a method to increase IgM titers and affinity in response to fish vaccination.

Vicente-Gil S, Simón R, Nogales-Mérida S, Nuñez-Ortiz N, Fouz B, Serra C, Ordás MC, Abós B, Herranz-Jusdado JG, Morel E, Díaz-Rosales P, Tafalla C.Fish Shellfish Immunol. 2025 Apr 14;162:110335. doi: 10.1016/j.fsi.2025.110335. Online ahead of print.PMID: 40233835

Influenza vaccination in patients with juvenile idiopathic arthritis under different treatments: safety and immune response.

Gyori A, Nagy A, Ottoffy G, Decsi T, Simon D, Berki T, Dergez T, Kuti D, Mosdosi B.Pediatr Rheumatol Online J. 2025 Apr 25;23(1):43. doi: 10.1186/s12969-025-01099-y.PMID: 40281592

Customized MHC Class I & II restricted peptides from clinical isolates of Mycobacterium tuberculosis tweak strong cellular immune response in Healthy individuals and Pulmonary Tuberculosis patients: A potential candidate in vaccine design.

Sharma N, Joshi B, Sharma B, Kumar S, Mohanty KK, Prakash H.Tuberculosis (Edinb). 2025 Apr 15;152:102640. doi: 10.1016/j.tube.2025.102640. Online ahead of print.PMID: 40262464

Corrigendum to "Dendritic cell targeting peptide plus Salmonella FliCd flagellin fused outer membrane protein H (OmpH) demonstrated increased efficacy against infections caused by different Pasteurella multocida serogroups in mouse models" [Vaccine 42 (2024) 3075-3083].

Wang Z, Wang M, Wang F, Luo Y, Liu H, Zhu Z, Huang X, Hua L, Chen H, Wu B, Peng Z.Vaccine. 2025 Apr 16;54:127126. doi: 10.1016/j.vaccine.2025.127126. Online ahead of print.PMID: 40245766

Emulsion adjuvant-induced uric acid release modulates optimal immunogenicity by targeting dendritic cells and B cells.

Lee SM, Lee J, Kim DI, Avila JP, Nakaya H, Kwak K, Kim EH.NPJ Vaccines. 2025 Apr 16;10(1):72. doi: 10.1038/s41541-025-01130-z.PMID: 40240376

Evaluating the impact of influenza vaccine on preventing stroke hospitalization and death in Chinese elderly hypertensive patients: A retrospective cohort study.

Tong F, Zhou T, Tang L, Wu X, Yang T, Ye L.Vaccine. 2025 Apr 15;54:127004. doi: 10.1016/j.vaccine.2025.127004. Online ahead of print.PMID: 40239300

Immunopeptidomics identified antigens for mRNA-lipid nanoparticle vaccines with alpha-galactosylceramide in multiple myeloma therapy.

Van der Vreken A, Thery F, Tu C, Mwangi K, Meulewaeter S, De Beck L, Janssens E, De Veirman K, Vanderkerken K, De Bruyne E, Franceschini L, Impens F, Verbeke R, Lentacker I, Menu E, Breckpot K.J Immunother Cancer. 2025 Apr 29;13(4):e010673. doi: 10.1136/jitc-2024-010673.PMID: 40300855

Safety of RTS,S/AS01(E) malaria vaccine up to 1 year after the third dose in Ghana, Kenya, and Malawi (EPI-MAL-003): a phase 4 cohort event monitoring study.

Haine V, Oneko M, Debois M, Ndeketa L, Agyapong PD, Boahen O, Harrison SBE, Adeniji E, Kaali S, Kayan K, Owusu-Agyei S, French N, Kariuki S, Devadiga R, Ogutu B, Ansah NA, Orsini M, Ansah PO, Maleta K, Ong'echa JM, Phiri VK, Mzanga P, Jere TM, Azongo DK, Mategula D, Orimbo J, Oduro AR, Otieno W, Kaburise MB, Ababio LO, Sifuna PM, Amoit SK, Olewe F, Oyieko JN, Achieng Oguk E, Guerra Mendoza Y, Awuni D, Sing'oei V, Onyango I, Schuerman L, Ochieng BO, Okoth GO, Nyangulu W, Cherop RY, Odera-Ojwang P, Cravcenco C, Chipatala R, Roman F, Savic M, Asante KP.Lancet Glob Health. 2025 Apr 24:S2214-109X(25)00096-8. doi: 10.1016/S2214-109X(25)00096-8. Online ahead of print.PMID: 40288377

COVID-19 vaccination and pregnancy-induced hypertension risk in women undergoing assisted reproduction.

Ma S, Zheng Y, Fang M, Xiong Y, Hu L, Liu Y, Gong F, Krämer BK, Lin G, Hocher B.Hum Reprod. 2025 Apr 11:deaf055. doi: 10.1093/humrep/deaf055. Online ahead of print.PMID: 40219638

Effect of vaccination against HPV in the HPV-positive patients not covered by primary prevention on the disappearance of infection.

Dominik P, Sonja MK, Robert J, Marcin P.Sci Rep. 2025 Apr 12;15(1):12642. doi: 10.1038/s41598-025-92861-5.PMID: 40221447

Identification of a conserved cryptic epitope with cross-immunoreactivity in outer membrane protein K (OmpK) from Vibrio species.

Lun J, Zheng P, Liang X, Hu Y, An L, Xiao G, Chen X, Chen Y, Gong H, Zhong M, Zhang Y, Hu Z.Vaccine. 2025 Apr 19;53:126964. doi: 10.1016/j.vaccine.2025.126964. Epub 2025 Mar 3.PMID: 40037129

A roadmap of priority evidence gaps for the co-implementation of malaria vaccines and perennial malaria chemoprevention.

Grant J; Perennial Malaria Chemoprevention (PMC) community of practice sub-group on the co-implementation of malaria vaccines.Malar J. 2025 Apr 17;24(1):126. doi: 10.1186/s12936-025-05347-0.PMID: 40247263

Lumpy skin disease virus suppresses the antiviral response of bovine peripheral blood mononuclear cells that support viral dissemination.

Kumar M, Frid O, Sol A, Rouvinski A, Karniely S.Vet Res. 2025 Apr 26;56(1):93. doi: 10.1186/s13567-025-01516-w.PMID: 40287781

Immune Escape and Drug Resistance Mutations in Patients with Hepatitis B Virus Infection: Clinical and Epidemiological Implications.

De Francesco MA, Gargiulo F, Dello Iaco F, Zeneli L, Zaltron S, Tiecco G, Pellizzeri S, Focà E, Caruso A, Quiros-Roldan E.Life (Basel). 2025 Apr 20;15(4):672. doi: 10.3390/life15040672.PMID: 40283226

Anti-PF4 mediated thrombocytopenia and thrombosis associated with acute cytomegalovirus infection displays both HIT-like and VITT-like characteristics.

Nicolson PLR, Montague SJ, Buka RJ, Calvert A, Sheppard JI, Zhang Y, Wang JJ, Sharman J, Hassan E, Harrison J, Lawrence E, El-Dalil P, Parekh D, Osman H, Gordon TP, Nazy I, Warkentin TE, Lester WA.Br J Haematol. 2025 Apr 29. doi: 10.1111/bjh.20092. Online ahead of print.PMID: 40298004

Bottom-up development of lipid-based synthetic cells for practical applications.

Yandrapalli N.Trends Biotechnol. 2025 Apr 21:S0167-7799(25)00094-0. doi: 10.1016/j.tibtech.2025.03.009. Online ahead of print.PMID: 40263003

Immunoengineering: An Emerging Field in Infectious Diseases.

Tatara AM, Mikos AG, Kontoyiannis DP.J Infect Dis. 2025 Apr 22:jiaf209. doi: 10.1093/infdis/jiaf209. Online ahead of print.PMID: 40259762

Community-based intervention to improve measles vaccination completion in marginalised community settlements in Kota Kinabalu, Sabah: a cluster randomised control trial.

Salleh H, Avoi R, Karim HA.BMC Infect Dis. 2025 Apr 12;25(1):514. doi: 10.1186/s12879-025-10902-w.PMID: 40221693

Developing an Online Community Advisory Board (CAB) of Parents From Social Media to Co-Design an Human Papillomavirus Vaccine Intervention: Participatory Research Study.

Murray RM, Chiang SC, Klassen AC, Manganello JA, Leader AE, Lo WJ, Massey PM.JMIR Form Res. 2025 Apr 16;9:e65986. doi: 10.2196/65986.PMID: 40239189

The T-cell response to SARS-CoV- 2 vaccination persists beyond six months in rheumatoid arthritis patients treated with rituximab.

Marin J, Bourgoin P, Saverna N, Cartagena C, Lafforgue P, Busnel JM, Balandraud N.Arthritis Res Ther. 2025 Apr 16;27(1):86. doi: 10.1186/s13075-025-03553-4.PMID: 40241223

Disproportionality analysis of European safety reports on autoimmune and rheumatic diseases following COVID-19 vaccination.

Fraenza F, Cagnotta C, Gaio M, Sportiello L, Scavone C, Capuano A, Trama U.Sci Rep. 2025 Apr 27;15(1):14740. doi: 10.1038/s41598-025-98313-4.PMID: 40289148

Modelling of potential risk areas of pertussis cases in the Philippines using bioclimatic envelopes.

Tomimbang AMG, Dagamac NHA, Komoda AT.Trop Med Int Health. 2025 Apr 21. doi: 10.1111/tmi.14115. Online ahead of print.PMID: 40259620

A synthetic peptide vaccine induces protective immune responses against Candida albicans infection in immunocompromised mice.

Diez A, Arrieta-Aguirre I, Carrano G, Bregón-Villahoz M, Moragues MD, Fernandez-de-Larrinoa I.Vaccine. 2025 Apr 19;53:127102. doi: 10.1016/j.vaccine.2025.127102. Epub 2025 Apr 7.PMID: 40194489

"Vaccinating a child is upon the woman": implications for improving uptake for the recently introduced second dose of measles-containing vaccine based on a rapid community assessment in Uganda.

Twimukye A, Ryan N, Najjuma FV, Wibabara Y, Nanyondo J, Nakato S, Nabaggala MS, Sugerman C, Kadobera D, Atugonza R, Kamulegeya J, Magoola J, Beyagira R, Lamorde M, Ario AR, Driwale A, Kulkarni S.Front Glob Womens Health. 2025 Apr 11;6:1441242. doi: 10.3389/fgwh.2025.1441242. eCollection 2025.PMID: 40290638

Vaccination readiness among adults in Norway: A cross-sectional survey using the 7C model.

Hansen BT, Kristoffersen AB, Stecher M.Vaccine. 2025 Apr 26;56:127169. doi: 10.1016/j.vaccine.2025.127169. Online ahead of print.PMID: 40288085

Signal Monitoring for Adverse Events Following Immunisation with COVID-19 Vaccines During the SARS-CoV-2 Pandemic: An Evaluation of the South African Surveillance System.

Sankar C, Evans S, Meyer JC, Gunter HM, Sekiti V, McCarthy K.Drug Saf. 2025 Apr 16. doi: 10.1007/s40264-025-01547-4. Online ahead of print.PMID: 40238055

The attitudes of pregnant or breastfeeding polish women towards COVID-19 vaccinations: a cross-sectional survey study.

Dancewicz H, Kwiatkowska A, Gebarowska J, Bienkowski C, Pokorska-Spiewak M.Ginekol Pol. 2025 Apr 14. doi: 10.5603/gpl.103797. Online ahead of print.PMID: 40226949

Feasibility and acceptability of pay-it-forward in increasing uptake of HPV vaccination among 15-18-year-old girls in China: Pilot RCT Results.

Li Y, Qin C, Li KT, He Y, Qiu S, Wu D, Li J.Cancer Prev Res (Phila). 2025 Apr 29. doi: 10.1158/1940-6207.CAPR-24-0549. Online ahead of print.PMID: 40296640

Functional T cell response to COVID-19 vaccination with or without natural infection with SARS-CoV-2 in adults and children.

Akhtar E, Kuddusi RU, Talukder MT, Jakarea M, Haq MA, Hossain MS, Vandenent M, Islam MZ, Zaman RU, Razzaque A, Sarker P, Raqib R.Sci Rep. 2025 Apr 17;15(1):13341. doi: 10.1038/s41598-025-95870-6.PMID: 40247005

In-vitro antimicrobial activity of new antimicrobial agents against Streptococcus pneumoniae and potential resistance mechanisms: a multicenter study.

Lei Z, Liu Q, Ma Y, Yang X, Zu H, Li Z, Zhang F, Pu D, Zhang Y, Lu B.BMC Microbiol. 2025 Apr 28;25(1):255. doi: 10.1186/s12866-025-03967-9.PMID: 40295931

Early 2022 breakthrough infection sera from India target the conserved cryptic class 5 epitope to counteract immune escape by SARS-CoV-2 variants.

Jana ID, Kanjo K, Roy S, Bhasin M, Bhattacharya S, Banerjee I, Jana S, Chatterjee A, Chakrabarti AK, Chakraborty S, Mukherjee B, Varadarajan R, Mondal A.J Virol. 2025 Apr 15;99(4):e0005125. doi: 10.1128/jvi.00051-25. Epub 2025 Mar 26.PMID: 40135898

A case of ulcerative colitis in a patient undergoing surgery due to exacerbation resulting in toxic megacolon after SARS-CoV-2 vaccination.

Ogihara R, Matsuura M, Ishida T, Morikubo H, Mitsui T, Saito D, Miyoshi J, Shibahara J, Sunami E, Hisamatsu T.Clin J Gastroenterol. 2025 Apr 28. doi: 10.1007/s12328-025-02136-9. Online ahead of print.PMID: 40295434

Multifractal analysis and support vector machine for the classification of coronaviruses and SARS-CoV-2 variants.

Correia JP, Silva LRD, Silva R.Sci Rep. 2025 Apr 29;15(1):15041. doi: 10.1038/s41598-025-98366-5.PMID: 40301538

Structure and infection dynamics of mycobacteriophage Bxb1.

Freeman KG, Mondal S, Macale LS, Podgorski J, White SJ, Silva BH, Ortiz V, Huet A, Perez RJ, Narsico JT, Ho MC, Jacobs-Sera D, Lowary TL, Conway JF, Park D, Hatfull GF.Cell. 2025 Apr 14:S0092-8674(25)00345-9. doi: 10.1016/j.cell.2025.03.027. Online ahead of print.PMID: 40239650

Law and Global Governance of Infectious Disease: Access to Medicines on COVID-19, AIDS, and Beyond.

Kavanagh MM, Abinader LG, Hassan F, Friedman E.J Law Med Ethics. 2025 Apr 14:1-6. doi: 10.1017/jme.2025.27. Online ahead of print.PMID: 40223655

Tailoring mRNA lipid nanoparticles for antifungal vaccines.

Li Y, Meagher RB, Lin X.PLoS Pathog. 2025 Apr 28;21(4):e1013091. doi: 10.1371/journal.ppat.1013091. eCollection 2025 Apr.PMID: 40293964

Transient pain and long-term gain: adjuvant dose directs immune memory.

Pal PB, Iyer SS.J Clin Invest. 2025 Apr 15;135(8):e190524. doi: 10.1172/JCI190524. eCollection 2025 Apr 15.PMID: 40231461

Advances in Subacute Thyroiditis: Pathogenesis, Diagnosis, and Therapies.

Li Y, Hu Y, Zhang Y, Cheng K, Zhang C, Wang J.FASEB J. 2025 Apr 15;39(7):e70525. doi: 10.1096/fj.202403264R.PMID: 40203050

Controlling Protein Immobilization over Poly(3-hydroxybutyrate) Microparticles Using Substrate Binding Domain from PHA Depolymerase.

Dias IP, da Cunha RS, Masaki R, Todo Bom MA, Ramos EAS, Dos Santos GJVP, Furman G, Lucena JT, Jiacomini IG, Lo SM, Schemczssen-Graeff Z, Beirão BCB, Zanata SM, Faria LML, Gerhardt EM, de Souza EM, Müller-Santos M, Picheth GF.Biomacromolecules. 2025 Apr 14;26(4):2529-2539. doi: 10.1021/acs.biomac.5c00010. Epub 2025 Mar 9.PMID: 40059311

Combination Treatment of Rituximab and Therapeutic Vaccines Affords Superior Tumor Suppression and Relapse Prevention for Non-Hodgkin Lymphoma.

Qi T, Guo J, Cao Z, Chen S, Kimura E, Li X, Kranz E, Guo X, Chen W, Wang Z, Wang CY, Lu Y, Wen J.Adv Mater. 2025 Apr 11:e2502372. doi: 10.1002/adma.202502372. Online ahead of print.PMID: 40214308

Risk factors for severe COVID-19 outcomes in LATAM countries in the post-vaccination era: an analysis of national surveillance data in Argentina, Brazil, Colombia, and Mexico.

Julian GS, Spinardi J, Díaz M, Ospina DB, Caballero N, Goularte-Silva V, Kyaw MH.J Glob Health. 2025 Apr 28;15:04141. doi: 10.7189/jogh.15.04141.PMID: 40292722

Molecular characteristics of the immune escape of coronavirus PEDV under the pressure of vaccine immunity.

Li Y, Yang S, Qian J, Liu S, Li Y, Song X, Cao Q, Guo R, Zhao Y, Sun M, Hu M, Li J, Zhang X, Fan B, Li B.J Virol. 2025 Apr 16:e0219324. doi: 10.1128/jvi.02193-24. Online ahead of print.PMID: 40237499

Low Hepatitis B vaccination coverage in New Delhi, India: urgent call for Universal Adult Hepatitis B vaccination.

Kaushal K, Gautam S, Aggarwal P, Kumar G, Dubey S, Sarin SK.BMC Public Health. 2025 Apr 26;25(1):1560. doi: 10.1186/s12889-025-22623-5.PMID: 40287667

Clinical characteristics, SARS-CoV-2 variants, and outcomes of adults hospitalized due to COVID-19 in Latin American countries.

López-Macías C, López-Medina E, Alves MB, Matos ADR, Hernández-Villena JV, Aponte-Torres Z, Sarabia LE, Manrique-Ramirez P, Tejado-Gallegos LF, Gutierrez LR, Meeraus W, Furtado BE.Clinics (Sao Paulo). 2025 Apr 23;80:100648. doi: 10.1016/j.clinsp.2025.100648. eCollection 2025.PMID: 40273490

Unmet need for human papillomavirus (HPV) vaccination among men who have sex with men living with and without human immunodeficiency virus (HIV), San Francisco, 2023.

Ramirez PL, Moscatelli AAM, Suprasert B, Tate M, Wilson EC, McFarland W.Sex Transm Dis. 2025 Apr 24. doi: 10.1097/OLQ.0000000000002177. Online ahead of print.PMID: 40273461

Discovery and validation of frameshift-derived neopeptides in Lynch syndrome: paving the way for novel cancer prevention strategies.

Bayó C, Castellano G, Marín F, Castillo-Iturra J, Ocaña T, Kumari H, Pellisé M, Moreira L, Rivero L, Daca-Alvarez M, Ortiz O, Carballal S, Moreira R, Canet-Hermida J, Pineda M, Gabriel C, Flórez-Grau G, Juan M, Benitez-Ribas D, Balaguer F.J Immunother Cancer. 2025 Apr 20;13(4):e011177. doi: 10.1136/jitc-2024-011177.PMID: 40254392

Geospatial analysis and scale-up modelling of the impact of mobile programming on access to essential childhood vaccinations in Yemen.

Garber K, Kanth P, Hassen K, Varkey S, Sumaili K.Commun Med (Lond). 2025 Apr 18;5(1):126. doi: 10.1038/s43856-025-00762-5.PMID: 40251338

Uptake of the recently introduced vaccines among children aged 12-23 months in Ethiopia: a multilevel analysis of the 2019 Ethiopia Mini Demographic and Health Survey.

Handebo S, Biratu TD, Demie TG, Woldeamanuel BT, Hunduma F, Tilahun G.BMJ Open. 2025 Apr 17;15(4):e084234. doi: 10.1136/bmjopen-2024-084234.PMID: 40250872

Hybrid, vaccine-induced and natural immunity against SARS-CoV-2 in traditional food markets in Bolivia (2020-2022): A cross-sectional analysis of a serological survey.

Leyns C, McClenaghan E, Rodriguez P, Nguipdop-Djomo P, Ascarrunz C, Eid Rodriguez D, Mangtani P, Guitian J.Vaccine. 2025 Apr 12;54:127104. doi: 10.1016/j.vaccine.2025.127104. Online ahead of print.PMID: 40222090

Immunogenicity of pre-exposure rabies vaccination comparing number of doses and routes of administration: A systematic review and meta-analyses.

Davis P, Montroy J, Warshawsky B, Abrams EM, Coward L, Killikelly A.Vaccine. 2025 Apr 19;53:126878. doi: 10.1016/j.vaccine.2025.126878. Epub 2025 Mar 12.PMID: 40081151

Stable Plasmodium falciparum merozoite surface protein-1 allelic diversity despite decreasing parasitaemia in children with multiple malaria infections.

Yaa RM, Kimenyi KM, Palasciano HA, Obiero G, Ochola-Oyier LI.Malar J. 2025 Apr 28;24(1):136. doi: 10.1186/s12936-025-05378-7.PMID: 40296022

How can the illness risk representation framework be used to explain flu, whooping cough and Covid-19 vaccination uptake amongst pregnant women? A qualitative study.

Parsons J, Grimley C, Clarke L, Hillman S.J Health Psychol. 2025 Apr 18:13591053251329680. doi: 10.1177/13591053251329680. Online ahead of print.PMID: 40249169

Persistent IgG1 clones dominate and personalize the plasma antibody repertoire.

van Rijswijck DMH, Bondt A, Raafat D, Holtfreter S, Wietschel KA, van der Lans SPA, Völker U, Bröker BM, Heck AJR.Sci Adv. 2025 Apr 18;11(16):eadt7746. doi: 10.1126/sciadv.adt7746. Epub 2025 Apr 16.PMID: 40238876

Generation of an inflammatory niche in a hydrogel depot through recruitment of key immune cells improves efficacy of mRNA vaccines.

Meany EL, Klich JH, Jons CK, Mao T, Chaudhary N, Utz A, Baillet J, Song YE, Saouaf OM, Ou BS, Williams SC, Eckman N, Irvine DJ, Appel E.Sci Adv. 2025 Apr 11;11(15):eadr2631. doi: 10.1126/sciadv.adr2631. Epub 2025 Apr 11.PMID: 40215318

Respiratory syncytial virus vaccination in pregnancy - Position statement by the European board and college of obstetrics and gynaecology (EBCOG).

Ramasauskaite D, Savona-Ventura C, Minkauskiene M, Mahmood T.Eur J Obstet Gynecol Reprod Biol. 2025 Apr 17;310:113978. doi: 10.1016/j.ejogrb.2025.113978. Online ahead of print.PMID: 40267825

Disassembly mediated multimodal chromatography based purification of HPV-VLPs produced in Pichia pastoris.

Sharma R, Prakash P, Gerstweiler L, Rathore AS.J Virol Methods. 2025 Apr 16;336:115168. doi: 10.1016/j.jviromet.2025.115168. Online ahead of print.PMID: 40250810

Ionizable lipid nanoparticles of mRNA vaccines elicit NF-κB and IRF responses through toll-like receptor 4.

Zelkoski AE, Lu Z, Sukumar G, Dalgard C, Said H, Alameh MG, Mitre E, Malloy AMW.NPJ Vaccines. 2025 Apr 17;10(1):73. doi: 10.1038/s41541-025-01124-x.PMID: 40246950

Maternal transfer of anti-GAPDH IgG prevents neonatal infections caused by *Staphylococcus aureus* and group B *Streptococcus*.

Lemos F, Vieira M, Fidalgo A, Curado L, Nogueira C, Nunes JB, Mafra J, Silva C, Caramelo O, Almeida MDC, Castanheira P, Fernandes C, Teixeira C, Madureira P.iScience. 2025 Mar 18;28(4):112248. doi: 10.1016/j.isci.2025.112248. eCollection 2025 Apr 18.PMID: 40241760

Glycosylation of an N-Acetylated Glucosamine Disaccharide Using an Orthogonally Protected 3-Iodo-Kdo Fluoride Donor.

Goto T, Blaukopf M, Stöger B, Pantophlet R, Kerner L, Kosma P.ChemistryOpen. 2025 Apr 14:e2500141. doi: 10.1002/open.202500141. Online ahead of print.PMID: 40223430

Shigella-trained pro-inflammatory macrophages protect zebrafish from secondary infection.

Gomes MC, Brokatzky D, Mostowy S.Cell Rep. 2025 Apr 22;44(5):115601. doi: 10.1016/j.celrep.2025.115601. Online ahead of print.PMID: 40266847

Implication of environmental factors on the pathogenicity of Vibrio vulnificus: Insights into gene activation and disease outbreak.

Bharathan A, Arafath Y, Fathima A, Hassan S, Singh P, Kiran GS, Selvin J.Microb Pathog. 2025 Apr 15;204:107591. doi: 10.1016/j.micpath.2025.107591. Online ahead of print.PMID: 40246153

Effectiveness of COVID-19 Vaccines Against Delta Variant: The Case of the Maldives.

Abdul Raheem R, Huda A, Shamah F, Murushidha M, Mohamed N, Ahmed IN, Rafeeg N, Aroosha A, Jamal S, Nazeem A, Rasheed T, Taneja S, George B, Macom J.Asia Pac J Public Health. 2025 Apr 17:10105395251325627. doi: 10.1177/10105395251325627. Online ahead of print.PMID: 40243230

Hematopoietic stem and progenitor cells fine-tunning the "sweet" of trained immunity.

Li J, Wang H, Xia S.J Leukoc Biol. 2025 Apr 15:qiaf043. doi: 10.1093/jleuko/qiaf043. Online ahead of print.PMID: 40233187

Superior Potency of Synthetic Virus-like Structures in Vaccine-Induced Antibody Responses Compared to Qbeta Bacteriophage Virus-like Particles.

Meyer AR, Li L, Wholey WY, Chackerian B, Cheng W.Viruses. 2025 Apr 17;17(4):579. doi: 10.3390/v17040579.PMID: 40285021

Exosome-based immunotherapy in hepatocellular carcinoma.

Liu H, Wang G, Li Z, Zhang X, Zhang W, Zhang X, Liu F, Gao J.Clin Exp Med. 2025 Apr 24;25(1):127. doi: 10.1007/s10238-025-01659-2.PMID: 40274634

Discovery of diverse and high-quality mRNA capping enzymes through a language model-enabled platform.

Wang T, Qin BR, Li S, Wang Z, Li X, Jiang Y, Qin C, Ouyang Q, Lou C, Qian L.Sci Adv. 2025 Apr 11;11(15):eadt0402. doi: 10.1126/sciadv.adt0402. Epub 2025 Apr 9.PMID: 40203090

Emergence and evolution of monkeypox virus: Epidemiology, pathology, clinical symptoms, preventative and treatment measures.

Tripathi P, Pandey S, Yadav D, Joshi S.Int Immunopharmacol. 2025 Apr 16;152:114448. doi: 10.1016/j.intimp.2025.114448. Epub 2025 Mar 11.PMID: 40073815

Environmental exposures and familial background alter the induction of neuropathology and inflammation after SARS-CoV-2 infection.

Chatterjee D, Kurup D, Smeyne RJ.NPJ Parkinsons Dis. 2025 Apr 23;11(1):86. doi: 10.1038/s41531-025-00925-0.PMID: 40268936

Chemical synthesis elucidates the absolute configuration and key antigenic epitope of *Vibrio cholerae* serotype O100 O-antigen.

Chen G, Tian G, Hu J, Qin C, Zou X, Cai J, Lv G, Gao W, Seeberger PH, Yin J.Sci Adv. 2025 Apr 25;11(17):eadv0571. doi: 10.1126/sciadv.adv0571. Epub 2025 Apr 25.PMID: 40279410

Cell membrane nanoparticles in cancer therapy: From basic structure to surface functionalization.

Kim M, Choi R, Kim L, Kim YC, Noh I.J Control Release. 2025 Apr 18:113752. doi: 10.1016/j.jconrel.2025.113752. Online ahead of print.PMID: 40254140

The therapeutic effect of mRNA vaccines in glioma: a comprehensive review.

Afrashteh F, Seyedpour S, Rezaei N.Expert Rev Clin Immunol. 2025 Apr 22:1-13. doi: 10.1080/1744666X.2025.2494656. Online ahead of print.PMID: 40249391

A History of Biosafety: U.S. Perspective.

Hawley RJ, Kozlovac JP.Cold Spring Harb Perspect Med. 2025 Apr 15:a041625. doi: 10.1101/cshperspect.a041625. Online ahead of print.PMID: 40234050

Development of Cre-dependent retrograde trans-multisynaptic tracer based on pseudorabies virus bartha strain.

You H, Qinghan W, Kangyixin S, Jia Y, Fuqiang X, Fan J.Mol Brain. 2025 Apr 14;18(1):33. doi: 10.1186/s13041-025-01204-y.PMID: 40229811

Chandipura Virus in India: A Comprehensive Epidemiological Review.

Pawar N, Seth AK.J Vector Borne Dis. 2025 Apr 11. doi: 10.4103/JVBD.JVBD_236_24. Online ahead of print.PMID: 40211667

Scalable Cell-Free Production of Active T7 RNA Polymerase.

Rezvani RN, Aw R, Chan W, Satish K, Chen H, Lavy A, Rimal S, Patel DA, Rao G, Swartz JR, DeLisa MP, Kvam E, Karim AS, Krüger A, Kightlinger W, Jewett MC.Biotechnol Bioeng. 2025 Apr 29. doi: 10.1002/bit.28993. Online ahead of print.PMID: 40296704

Progress in the development of cancer vaccines for lung cancer utilizing dendritic cells (Review).

Hu H, Chen WJ, Sun C, Xie JP.Oncol Lett. 2025 Apr 14;29(6):298. doi: 10.3892/ol.2025.15044. eCollection 2025 Jun.PMID: 40276084

Replicon RNA vaccines: design, delivery, and immunogenicity in infectious diseases and cancer.

Tang L, Que H, Wei Y, Yang T, Tong A, Wei X.J Hematol Oncol. 2025 Apr 17;18(1):43. doi: 10.1186/s13045-025-01694-2.PMID: 40247301

Human Papillomavirus (HPV) Vaccination Rates Among U.S. Military Veteran Females and Males and Non-Veterans in the National Health Interview Survey.

Dubiel LJ, Vinekar KS, Than CT, Chawla N, Hoggatt KJ, Yano EM, Danan ER.Mil Med. 2025 Apr 23;190(5-6):e1152-e1158. doi: 10.1093/milmed/usae490.PMID: 39413020

Characterization of proteins present in the biofilm matrix and outer membrane vesicles of *Histophilus somni* during iron-sufficient and iron-restricted growth: identification of potential protective antigens through *in silico* analyses.

Lee Y-J, Abdullah M, Chang Y-F, Sudani HA, Inzana TJ.mBio. 2025 Apr 17:e0064425. doi: 10.1128/mbio.00644-25. Online ahead of print.PMID: 40243366

Intranasal parainfluenza virus-vectored vaccine expressing SARS-CoV-2 spike protein of Delta or Omicron B.1.1.529 induces mucosal and systemic immunity and protects hamsters against homologous and heterologous challenge.

Park HS, Matsuoka Y, Santos C, Luongo C, Liu X, Yang L, Kaiser JA, Duncan EF, Johnson RF, Teng IT, Kwong PD, Buchholz UJ, Le Nouën C.PLoS Pathog. 2025 Apr 21;21(4):e1012585. doi: 10.1371/journal.ppat.1012585. Online ahead of print.PMID: 40258004

ARNAX is an ideal adjuvant for COVID-19 vaccines to enhance antigen-specific $CD4^+$ and $CD8^+$ T-cell responses and neutralizing antibody induction.

Kawakita T, Sekiya T, Kameda Y, Nomura N, Ohno M, Handabile C, Yamaya A, Fukuhara H, Anraku Y, Kita S, Toba S, Tsukamoto H, Sawa T, Oshiumi H, Itoh Y, Maenaka K, Sato A, Sawa H, Suzuki Y, Brown LE, Jackson DC, Kida H, Matsumoto M, Seya T, Shingai M.J Virol. 2025 Apr 15:e0229024. doi: 10.1128/jvi.02290-24. Online ahead of print.PMID: 40231823

The latency time of SARS-CoV- 2 Delta variant in infection- and vaccine-naive individuals from Vietnam.

Arntzen VH, Nguyen Duc M, Fiocco M, Truong Thi Thanh L, Nguyen Hoai Thao T, Mai Thanh B, Nguyen TA, Le Thanh Hoang N, Choisy M, Phung Khanh L, Le Hong N, Geskus RB.BMC Infect Dis. 2025 Apr 12;25(1):515. doi: 10.1186/s12879-025-10898-3.PMID: 40221669

Efficacy, safety, and immunogenicity of the AS01(E)-adjuvanted respiratory syncytial virus prefusion F protein vaccine (RSVPreF3 OA) in older adults over three respiratory syncytial virus seasons (AReSVi-006): a multicentre, randomised, observer-blinded, placebo-controlled, phase 3 trial.

Ison MG, Papi A, Athan E, Feldman RG, Langley JM, Lee DG, Leroux-Roels I, Martinon-Torres F, Schwarz TF, van Zyl-Smit RN, Cuadripani S, Deraedt Q, Dezutter N, Gerard C, Fissette L, Xavier S, David MP, Olivier A, Van der Wielen M, Descamps D; AReSVi-006 study group.Lancet Respir Med. 2025 Apr 11:S2213-2600(25)00048-7. doi: 10.1016/S2213-2600(25)00048-7. Online ahead of print.PMID: 40245915

Factors that influence caregivers' and adolescents' views and practices regarding human papillomavirus (HPV) vaccination for adolescents: a qualitative evidence synthesis.

Cooper S, Schmidt BM, Jama NA, Ryan J, Leon N, Mavundza EJ, Burnett RJ, Tanywe AC, Wiysonge CS.Cochrane Database Syst Rev. 2025 Apr 15;4(4):CD013430. doi: 10.1002/14651858.CD013430.pub2.PMID: 40232221

Epidemiology and evolutionary dynamics of H9N2 avian influenza virus in Bangladesh.

Islam A, Amin E, Khan MA, Islam M, Gupta SD, Abedin J, Rahman MZ, Forwood JK, Hosaain ME, Shirin T.Emerg Microbes Infect. 2025 Apr 24:2498574. doi: 10.1080/22221751.2025.2498574. Online ahead of print.PMID: 40271995

Design of nanobody targeting SARS-CoV-2 spike glycoprotein using CDR-grafting assisted by molecular simulation and machine learning.

Ferraz MV, Adan WCS, Lima TE, Santos AJ, Paula SO, Dhalia R, Wallau GL, Wade RC, Viana IF, Lins RD.PLoS Comput Biol. 2025 Apr 21;21(4):e1012921. doi: 10.1371/journal.pcbi.1012921. Online ahead of print.PMID: 40257976

Characterization of the trehalase function of Haemonchus contortus and its immunomodulatory effect on host PBMCs.

Wen Z, Yan S, Amujilata, Feng J, Chen C, Xu Y, Lu M, Xu L, Song X, Li X, Yan R.Int J Biol Macromol. 2025 Apr 11;309(Pt 4):143102. doi: 10.1016/j.ijbiomac.2025.143102. Online ahead of print.PMID: 40222538

Fractional order modeling of hepatitis B virus transmission with imperfect vaccine efficacy.

Abboubakar H, Banbeto SAG, Jan R, Fandio R, Fouda HPE, Khan I, Khan MS.Sci Rep. 2025 Apr 24;15(1):14245. doi: 10.1038/s41598-025-96887-7.PMID: 40274972

Global Guidelines and Trends in HPV Vaccination for Cervical Cancer Prevention.

Miazga W, Tatara T, Gujski M, Pinkas J, Ostrowski J, Religioni U.Med Sci Monit. 2025 Apr 24;31:e947173. doi: 10.12659/MSM.947173.PMID: 40269487

Fowl Adenovirus Serotype 1: From Gizzard Erosion to Comprehensive Insights into Genome Organization, Epidemiology, Pathogenesis, Diagnosis, and Prevention.

Kardoudi A, Benani A, Allaoui A, Kichou F, Biskri L, Ouchhour I, Fellahi S.Vet Sci. 2025 Apr 17;12(4):378. doi: 10.3390/vetsci12040378.PMID: 40284880

SARS-CoV-2 Vaccines and Multiple Sclerosis: An Update.

Monschein T, Zrzavy T, Rommer PS, Meuth SG, Chan A, Berger T, Hartung HP.Neurol Neuroimmunol Neuroinflamm. 2025 May;12(3):e200393. doi: 10.1212/NXI.0000000000200393. Epub 2025 Apr 25.PMID: 40279527

Glioblastoma Cell Lysate and Adjuvant Nanovaccines via Strategic Vaccination Completely Regress Established Murine Tumors.

Zhao S, Qu Y, Sun Z, Zhang S, Xia M, Shi Y, Wang J, Wang Y, Zhong Z, Meng F.Adv Healthc Mater. 2025 Apr 24:e2500911. doi: 10.1002/adhm.202500911. Online ahead of print.PMID: 40270217

Efficient boosting of Omicron-reactive memory B cells after breakthrough infection protects from repeated exposure.

Chu Q, Li K, He Q, Ren L, Wang J, Wang S, Liu X, Liu Y, He J, Li D, Shao Y.iScience. 2025 Mar 25;28(4):112278. doi: 10.1016/j.isci.2025.112278. eCollection 2025 Apr 18.PMID: 40264792

Computer-Aided Technology for Bioactive Protein Design and Clinical Application.

Wang C, Chen Y, Ren L.Macromol Biosci. 2025 Apr 22:e2500007. doi: 10.1002/mabi.202500007. Online ahead of print.PMID: 40260555

Development and Evaluation of an Advocacy Curriculum for Pediatric Emergency Medicine Fellows.

Attridge MM, Kester KM, Kemal S, Varma Thomas S, Mangold K, Hoffmann JA.Pediatrics. 2025 Apr 15:e2024067564. doi: 10.1542/peds.2024-067564. Online ahead of print.PMID: 40228817

BA.1 breakthrough infection elicits distinct antibody and memory B cell responses in vaccinated-only versus hybrid immunity individuals.

Saade C, Bruel T, Vrignaud LL, Killian M, Drouillard A, Barateau V, Espi M, Mariano N, Mignon C, Bruyère L, Khoryati L, Bolland WH, Schwartz O, Lina B, Valette M, Thaunat O, Fassier JB; COVID-Ser study group; Pozzetto B, Paul S, Walzer T, Trouillet-Assant S.iScience. 2025 Feb 5;28(4):111962. doi: 10.1016/j.isci.2025.111962. eCollection 2025 Apr 18.PMID: 40224022

Quillaja lancifolia Immunoadjuvant Saponins Show Toxicity to Herbivores and Pathogenic Fungi.

Yendo ACA, Colling LC, Matsuura HN, Vargas LRB, Martinelli JA, Chitolina GZ, Vainstein MH, Fett-Neto AG.Plants (Basel). 2025 Apr 20;14(8):1252. doi: 10.3390/plants14081252.PMID: 40284140

Efficient discovery of frequently co-occurring mutations in a sequence database with matrix factorization.

Robert Kolar M, Mitra D, Kobzarenko V.PLoS Comput Biol. 2025 Apr 24;21(4):e1012391. doi: 10.1371/journal.pcbi.1012391. Online ahead of print.PMID: 40273414

Cholesterol-Derived Mannosylated Polypeptide-Formed Lipid Nanoparticles for Efficient in Vivo mRNA Delivery.

Zeng JY, Lingesh S, Krishnan NB, Loong BSY, Liu M, Chen Q, Yang YY.Small Methods. 2025 Apr 21:e2401712. doi: 10.1002/smtd.202401712. Online ahead of print.PMID: 40256901

First-in-Human Clinical Trial of Vaccination with WDVAX, a Dendritic Cell Activating Scaffold Incorporating Autologous Tumor Cell Lysate, in Metastatic Melanoma Patients.

Hodi FS, Giobbie-Hurder A, Adu-Berchie K, Ranasinghe S, Lako A, Severgnini M, Thrash EM, Weirather JL, Baginska J, Manos MP, Doherty EJ, Stafford A, Daley H, Ritz J, Ott PA, Pfaff KL, Rodig SJ, Yoon CH, Dranoff G, Mooney DJ.Cancer Immunol Res. 2025 Apr 11. doi: 10.1158/2326-6066.CIR-24-0333. Online ahead of print.PMID: 40215342

Dynamic DNA-Based Nanoadjuvants for TLR9 Clustering and Innate Immune Activation in Dendritic Cells.

Lv Z, Guo X, Zhang R, Yao Y, Shao L, Li S, Chen C, Yang D, Liu Y.J Am Chem Soc. 2025 Apr 23;147(16):13545-13555. doi: 10.1021/jacs.5c00481. Epub 2025 Apr 9.PMID: 40203281

Current advancements in nanoparticles for vaccines and drug delivery for the treatment of tuberculosis.

Sharma DK.J Microbiol Methods. 2025 Apr 23;232-234:107138. doi: 10.1016/j.mimet.2025.107138. Online ahead of print.PMID: 40280241

Modeling potential drugs for Zika virus in animal and in vitro platforms: what is the current state of the art?

Santos D, Carrijo Oliveira N, Costa ECA, Ramalho Paes MV, Beltrão-Braga B, Castanha AG, Beltrão-Braga PCB.Expert Opin Drug Discov. 2025 Apr 23:1-13. doi: 10.1080/17460441.2025.2496461. Online ahead of print.PMID: 40251755

Impact of memory T cells on SARS-CoV-2 vaccine response in hematopoietic stem cell transplant.

VanOudenhove J, Liu Y, Nelakanti R, Kim D, Busarello E, Ovalle NT, Qi Z, Mamillapalli P, Siddon A, Bai Z, Axtmayer A, Corso C, Kothari S, Foss F, Isufi I, Tebaldi T, Gowda L, Fan R, Seropian S, Halene S.PLoS One. 2025 Apr 28;20(4):e0320744. doi: 10.1371/journal.pone.0320744. eCollection 2025.PMID: 40294012

Hmong Promoting Vaccines eHealth website: a community-based participatory research pilot to evaluate dissemination and implementation strategies for primary care and educational contexts.

Xiong S, Culhane-Pera KA, Desai J, Khang T, Torres MB, Vue B, Wilhelm AK.Implement Sci Commun. 2025 Apr 15;6(1):45. doi: 10.1186/s43058-025-00733-w.PMID: 40235015

Respiratory syncytial virus vaccine uptake among adults aged 60 years in a large, integrated healthcare system in Southern California 2023-2024.

Patrick R, Mahale P, Ackerson BK, Hong V, Shaw S, Kapadia B, Spence B, Feaster M, Slezak J, Stern JA, Davis GS, Goodwin G, Lewin B, Lewnard JA, Tseng HF, Tartof SY.Vaccine. 2025 Apr 19;53:127033. doi: 10.1016/j.vaccine.2025.127033. Epub 2025 Apr 2.PMID: 40179438

Development and validation of COVID-19 vaccination perception (CoVaP) instrument among healthcare workers in Malaysia.

Zaid SNA, Abdul Kadir A, Norhayati MN, Ahmad B, Yusoff MSB, Ramli AS, Liew JSY.PeerJ. 2025 Apr 23;13:e19318. doi: 10.7717/peerj.19318. eCollection 2025.PMID: 40292094

Characterization of binding affinity changes of SARS-CoV-2 omicron variant peptides to population-specific HLA.

Chang CM, Wu CJ, Shkurnikov M, Guo CL, Huang WC, Tonevitsky A, Chang WC.J Biomed Sci. 2025 Apr 29;32(1):44. doi: 10.1186/s12929-025-01139-5.PMID: 40301887

Optimal vaccination model of airborne infection under variable humidity and demographic heterogeneity for hybrid fractional operator technique.

Rashid S, Ali I, Fatima N, Fatima T, Agam FT, Elagan SK.Sci Rep. 2025 Apr 26;15(1):14604. doi: 10.1038/s41598-025-93346-1.PMID: 40287448

TRAIT: A Comprehensive Database for T-cell Receptor-Antigen Interactions.

Wei M, Wu J, Bai S, Zhou Y, Chen Y, Zhang X, Zhao W, Chi Y, Pan G, Zhu F, Chen S, Zhou Z.Genomics Proteomics Bioinformatics. 2025 Apr 21:qzaf033. doi: 10.1093/gpbjnl/qzaf033. Online ahead of print.PMID: 40257421

Identification of post-translationally modified MHC class I-associated peptides as potential cancer immunotherapeutic targets.

Mahoney KE, Reser L, Ruiz Cuevas MV, Abelin JG, Shabanowitz J, Hunt DF, Malaker SA.Mol Cell Proteomics. 2025 Apr 14:100971. doi: 10.1016/j.mcpro.2025.100971. Online ahead of print.PMID: 40239839

Public antibodies: convergent signatures in human humoral immunity against pathogens.

Rao VN, Coelho CH.mBio. 2025 Apr 16:e0224724. doi: 10.1128/mbio.02247-24. Online ahead of print.PMID: 40237455

Enhanced sulfate pseudo-affinity chromatography using monolith-like particle architecture for purifying SARS-CoV-2.

Kadoi K, Toba J, Uehara A, Isoda N, Sakoda Y, Iwamoto E.Vaccine. 2025 Apr 19;53:126951. doi: 10.1016/j.vaccine.2025.126951. Epub 2025 Mar 3.PMID: 40037125

Genetic Profiles of Ten African Swine Fever Virus Strains from Outbreaks in Select Provinces of Luzon, Visayas, and Mindanao, Philippines, Between 2021 and 2023.

Montecillo AD, Baybay ZK, Ferrer JBC, Cariaso W, Pantua A, Jose JP, Madera R, Shi J, Doysabas KC, Dargantes A, Dargantes KAT, Boongaling ARA, Manglicmot AP, Villegas LC, Pantua HD.Viruses. 2025 Apr 21;17(4):588. doi: 10.3390/v17040588.PMID: 40285030

Development of viral infectious clones and their applications based on yeast and bacterial artificial chromosome platforms.

Wu Y, Gao S, Liu G, Wang M, Tan R, Huang B, Tan W.Mol Biomed. 2025 Apr 29;6(1):26. doi: 10.1186/s43556-025-00266-7.PMID: 40295404

Injectable extracellular vesicle hydrogels with tunable viscoelasticity for depot vaccine.

Bhatta R, Han J, Liu Y, Bo Y, Wang Y, Nguyen D, Chen Q, Wang H.Nat Commun. 2025 Apr 22;16(1):3781. doi: 10.1038/s41467-025-59278-0.PMID: 40263275

Targeting B7-H3 enhances the efficacy of neoantigen-based cancer vaccine in combination with radiotherapy.

Ke TW, Chen CY, Chen WT, Tsai YY, Chiang SF, Huang CH, Lin YS, Chen TH, Chen TW, Liang JA, Chao KSC, Huang KC.NPJ Vaccines. 2025 Apr 21;10(1):80. doi: 10.1038/s41541-025-01132-x.PMID: 40258806

TCR CDR3 chemical complementarity to HPV epitopes is associated with a better outcome for cervical cancer.

Agnila DRL, Jain R, Diaz MJ, Hudlock TR, Eakins RA, Chobrutskiy A, Chobrutskiy BI, Blanck G.Mamm Genome. 2025 Apr 11. doi: 10.1007/s00335-025-10127-x. Online ahead of print.PMID: 40216662

A Versatile Strategy to Transform Cationic Polymers for Efficient and Organ-Selective mRNA Delivery.

Lin L, Su K, Zhang X, Shi L, Yan X, Fu Q, Yao K, Siegwart DJ, Liu S.Angew Chem Int Ed Engl. 2025 Apr 17;64(17):e202500306. doi: 10.1002/anie.202500306. Epub 2025 Feb 17.PMID: 39929776

Evaluation of Different Machine Learning Approaches to Predict Antigenic Distance Among Newcastle Disease Virus (NDV) Strains.

Franzo G, Fusaro A, Snoeck CJ, Dodovski A, Van Borm S, Steensels M, Christodoulou V, Onita I, Burlacu R, Sánchez AS, Chvala IA, Torchetti MK, Shittu I, Olabode M, Pastori A, Schivo A, Salomoni A, Maniero S, Zambon I, Bonfante F, Monne I, Cecchinato M, Bortolami A.Viruses. 2025 Apr 14;17(4):567. doi: 10.3390/v17040567.PMID: 40285009

Nanotechnology-Enhanced Transdermal Patches for Hypertension: A Review.

Yadav N, Kumar P, Singh TG, Devi S.Curr Hypertens Rev. 2025 Apr 28. doi: 10.2174/0115734021373953250416105243. Online ahead of print.PMID: 40296629

An injectable oncolytic hydrogel platform for *in situ* dendritic cell vaccination to boost antitumor immunity.

Wang ZL, Qiu SY, Sun YQ, Du XJ, Xu CF, Cao ZY, Lu ZD.Biomater Sci. 2025 Apr 17. doi: 10.1039/d5bm00284b. Online ahead of print.PMID: 40243662

Continuous purification of a parvovirus using two aqueous two-phase extraction steps.

Nold NM, Waldack S, James G, Colling T, Manchester L, Sarvari T, Bekkala A, Kriz SA, Baldwin M, Agustin-Mazariegos E, Betenbaugh MJ, Heldt CL.Biotechnol Prog. 2025 Apr 15:e70034. doi: 10.1002/btpr.70034. Online ahead of print.PMID: 40231435

Death from *S. pneumoniae* in HbSC Disease: Was Expanded Pneumococcal Vaccination Too Late?

Coomer CA, Levin RA, Neri CM.Hemoglobin. 2025 Apr 14:1-5. doi: 10.1080/03630269.2025.2489635. Online ahead of print.PMID: 40229224

Combating yellow fever virus with 7-deaza-7-fluoro-2'-C-methyladenosine.

LeCher JC, Costa VV, Rust LN, Bassit LC, Patel D, Rezaei S, Moua J, Santos FRdS, Goncalves MR, Queroz-Junior CM, Marim FM, Zhou L, Lee S, McBrayer T, De R, Azadi N, Salman M, Zandi K, Amblard F, Burwitz B, Teixeira MM, Schinazi RF.Antimicrob Agents Chemother. 2025 Apr 14:e0188924. doi: 10.1128/aac.01889-24. Online ahead of print.PMID: 40227063

Phylogenetic analysis of *vp2* gene of the infectious bursal disease virus in South China during 2023.

Zhu K, Wu Q, Leng M, Wang Z, Lin W.Front Vet Sci. 2025 Apr 15;12:1575407. doi: 10.3389/fvets.2025.1575407. eCollection 2025.PMID: 40303390

Construction of a single-cycle replication recombinant infectious laryngotracheitis virus lacking the glycoprotein H gene and evaluation of its role in viral entry and infectivity.

Jamour P, Jamali A, Langeroudi AG, Yahyaie S, Adibzadeh S, Sharafabad BE, Abdoli A.Arch Virol. 2025 Apr 29;170(6):115. doi: 10.1007/s00705-025-06302-9.PMID: 40299141

Symptoms and Management of Painful Progressive Swelling in Eswatini Snakebite Patients: A Prospective Observational Study.

Steinhorst J, Litschka-Koen T, Ascenção B, Mmema L, Shongwe N, Murray J, VanderWal H, Cuginotti de Oliveira R, Sithole T, Padidar S, Casewell NR, Pons J, Harrison RA, Lalloo DG, Stienstra Y.Am J Trop Med Hyg. 2025 Apr 15:tpmd240671. doi: 10.4269/ajtmh.24-0671. Online ahead of print.PMID: 40233729

Platelet spleen tyrosine kinase is a key regulator of anti-PF4 antibody-induced immunothrombosis.

Zlamal J, Ripoll VM, Lee CSM, Toma F, Althaus K, Rigoni F, Witzemann A, Whittaker S, Capraro D, Uzun G, Bakchoul T, Chen VM.Blood Adv. 2025 Apr 22;9(8):1772-1785. doi: 10.1182/bloodadvances.2024014167.PMID: 39705541

ARTdeConv: adaptive regularized tri-factor non-negative matrix factorization for cell type deconvolution.

Liu T, Liu C, Li Q, Zheng X, Zou F.NAR Genom Bioinform. 2025 Apr 26;7(2):lqaf046. doi: 10.1093/nargab/lqaf046. eCollection 2025 Jun.PMID: 40290316

Evolving impact of the COVID-19 pandemic in chronic dialysis recipients in France.

Leye E, El Karoui K, Delory T, Espagnacq M, Khlat M, Le Coeur S, Lapidus N, Hejblum G; COVID-HOSP working group.Commun Med (Lond). 2025 Apr 30;5(1):147. doi: 10.1038/s43856-025-00848-0.PMID: 40301524

IFITM3 variants point to a critical role in emergent virus infections.

Denz PJ, Yount JS.mBio. 2025 Apr 16:e0334724. doi: 10.1128/mbio.03347-24. Online ahead of print.PMID: 40237465

(Un)certainty and Risk Communication on COVID-19 Vaccines: A Comparison Between Civilian and Military Discourse.

Doerr RB.Commun Med. 2025 Apr 15:e20240016. doi: 10.3138/cam-2024-0016. Online ahead of print.PMID: 40232185

Immunological characteristics of the recombinant pseudorabies virus with chimeric PCV Cap protein in pigs.

Lu C, Chen W, Chen H, Xing G, Ma J, Zhou H, Qin L, Da L, Sun S, Peng P, Li H, Jin Y, Yan Y, Pan S, Dong W, Gu J, Zhou J.Vet Microbiol. 2025 Apr 23;305:110529. doi: 10.1016/j.vetmic.2025.110529. Online ahead of print.PMID: 40288026

A single amino acid mutation alters multiple neutralization epitopes in the respiratory syncytial virus fusion glycoprotein.

Oraby AK, Stojic A, Elawar F, Bilawchuk LM, McClelland RD, Erwin K, Granoski MJ, Griffiths CD, Frederick JD, Arutyunova E, Joanne Lemieux M, West FG, Ramilo O, Mejias A, McLellan JS, Marchant DJ.Npj Viruses. 2025 Apr 22;3(1):33. doi: 10.1038/s44298-025-00119-8.PMID: 40295799

Engineered Genetic Circuits Activated by Bezafibrate Improve ESC-Based TAA Cancer Vaccine Efficacy and PD-L1 Nanobody Therapy.

Jin M, Liu S, Zhan M, Huang JD.Adv Sci (Weinh). 2025 Apr 17:e2500272. doi: 10.1002/advs.202500272. Online ahead of print.PMID: 40245119

Current and future advances in practice: arboviral arthritides.

Sharma A, Ravindran V.Rheumatol Adv Pract. 2025 Apr 11;9(2):rkaf029. doi: 10.1093/rap/rkaf029. eCollection 2025.PMID: 40225230

Global perspectives on COVID-19 vaccination: Impacts on well-being and inequality.

Leblang D, Smith MD, Wesselbaum D.Vaccine. 2025 Apr 11;52:126906. doi: 10.1016/j.vaccine.2025.126906. Epub 2025 Feb 22.PMID: 39987880

Influenza A Virus Production Following Quality by Design Principles.

Zinnecker T, Thiele K, Schmidberger T, Genzel Y, Reichl U.Eng Life Sci. 2025 Apr 23;25(4):e70027. doi: 10.1002/elsc.70027. eCollection 2025 Apr.PMID: 40271119

Knowledge-based mitigation of the environmental risk of Orthoflavivirus live-attenuated vaccines by targeting viral encoded determinants for the mosquito attenuated phenotype.

Mantlo EK, Huang YS.Vaccine. 2025 Apr 17;54:127114. doi: 10.1016/j.vaccine.2025.127114. Online ahead of print.PMID: 40252364

Efficient generation of human dendritic cells from iPSC by introducing a feeder-free expansion step for hematopoietic progenitors.

Elahi Z, Jameson V, Sakkas M, Butcher SK, Mintern JD, Radford KJ, Wells CA.J Leukoc Biol. 2025 Apr 16:qiaf045. doi: 10.1093/jleuko/qiaf045. Online ahead of print.PMID: 40238941

Verteporfin-Mediated In Situ Nanovaccine Based on Local Conventional-Dose Hypofractionated Radiotherapy Enhances Antitumor and Immunomodulatory Effect.

Zhang Z, Li L, Ge Y, Chen A, Diao S, Yang Y, Chen Q, Zhou Y, Shao J, Meng F, Yu L, Tian M, Qian X, Lin Z, Xie C, Liu B, Li R.Adv Sci (Weinh). 2025 Apr 15:e2413387. doi: 10.1002/advs.202413387. Online ahead of print.PMID: 40231790

Combined immunotherapy employing Wilms' tumor 1 peptide-pulsed dendritic cells and hormone or chemotherapeutic agents in patients with metastatic castration resistant prostate cancer.

Ogasawara M, Miyashita M, Yamagishi Y, Ota S.Ther Apher Dial. 2025 Apr 13. doi: 10.1111/1744-9987.70016. Online ahead of print.PMID: 40223232

Disease burden estimates in economic evaluation studies of respiratory syncytial virus (RSV) maternal immunization: a systematic review.

Borges SAM, de Moraes Cerchiari NR, Polli EO, Nonato AC, Barreto FL, de Oliveira Esteves A, Postma MJ, Christovam Sartori AM, de Soárez PC.Expert Rev Pharmacoecon Outcomes Res. 2025 Apr 28. doi: 10.1080/14737167.2025.2498663. Online ahead of print.PMID: 40293142

Berberine Suppression of Human IgE but Not IgG Production via Inhibition of STAT6 Binding Activity at IgE Promoter by BCL6.

Maskey AR, Carnazza M, Spears M, Hemmindinger S, Kopulos D, Yang N, Islam HK, Moscatello AL, Geliebter J, Tiwari RK, Li XM.Cells. 2025 Apr 14;14(8):591. doi: 10.3390/cells14080591.PMID: 40277916

Guanidinium/Phenyl-Rich Amphiphilic Cationic Polymer for Efficient Cytosolic Protein Delivery and Cancer Immunotherapy.

Feng N, Cao X, Xiao J, Huang Q, Li Q, Wang C, Zhou B, Shi L, Zhang Z, Liu Y.ACS Appl Mater Interfaces. 2025 Apr 23;17(16):23763-23773. doi: 10.1021/acsami.5c03334. Epub 2025 Apr 10.PMID: 40207524

Proceedings of the second annual dengue endgame summit: A call to action.

Hardy CSC, Bahr LE, Rothman AL, Anderson KB, Barba-Spaeth G, Weiskopf D, Ooi EE, Marques ETA, Bonsignori M, Barrett ADT, Kirkpatrick BD, Castanha PMS, Hamins-Puertolas M, Christofferson RC,

Dimopoulos G, Oliveira F, Chiang LW, Ko AI, Gunale B, Kulkarni P, Perkins TA, Dorigatti I, Stewart T, Shaw J, Johansson MA, Thomas SJ, Waickman AT.PLoS Negl Trop Dis. 2025 Apr 28;19(4):e0013028. doi: 10.1371/journal.pntd.0013028. eCollection 2025 Apr.PMID: 40294026

Computational repurposing of polyphenols for anti-Mpoxviral activity.

Astakala RV, Preet G, Haj Hasan A, Desai R, Alfurayh M, Ebel R, Jaspars M.In Silico Pharmacol. 2025 Apr 17;13(2):65. doi: 10.1007/s40203-025-00345-1. eCollection 2025.PMID: 40255263

Emerging variants of Mpox virus and tecovirimat resistance: Genomic insights and implications for treatment strategies.

Chenchula S, Atal S, Ghanta MK, Uppugunduri CR, Karunakaran S, Amerneni KC, Sarma P, Prakash S, Amerneni LS, Padmavathi R, Anitha K, Sai Varshini T, Vishnu Vardhan K, Kaore S, Sadasivam B.Virology. 2025 Apr 12;608:110532. doi: 10.1016/j.virol.2025.110532. Online ahead of print.PMID: 40245474

Leukocyte telomere length and telomerase activity in Long COVID patients from Rio de Janeiro, Brazil.

Dos Reis GG, Silvestre RT, Alves G, Delmonico L, Chantre-Justino M, Moreira ADS, Müller BLA, do Nascimento CR, da Silva DLP, Dos Santos LS, Mattos-Guaraldi AL, Ornellas MH.Mem Inst Oswaldo Cruz. 2025 Apr 11;120:e240129. doi: 10.1590/0074-02760240129. eCollection 2025.PMID: 40243865

Long-lasting antibody B-cell responses to SARS-CoV-2 three years after the onset of the pandemic.

Molinos-Albert LM, Rubio R, Martín-Pérez C, Pradenas E, Torres C, Jiménez A, Canyelles M, Vidal M, Barrios D, Marfil S, Aparicio E, Ramírez-Morros A, Trinité B, Vidal-Alaball J, Santamaria P, Serra P, Izquierdo L, Aguilar R, Ruiz-Comellas A, Blanco J, Dobaño C, Moncunill G.Cell Rep. 2025 Apr 22;44(4):115498. doi: 10.1016/j.celrep.2025.115498. Epub 2025 Apr 1.PMID: 40173043

SARS-CoV2 vaccination during pregnancy - Vetting the impact on maternal health and long-term consequences for offspring brain function.

Gundacker A, Schaer R, Pollak A, Weber-Stadlbauer U, Pollak DD.Brain Behav Immun. 2025 Apr 22:S0889-1591(25)00166-7. doi: 10.1016/j.bbi.2025.04.029. Online ahead of print.PMID: 40274002

Limit of Detection of Raman Spectroscopy Using Polystyrene Particles from 25 to 1000 nm in Aqueous Suspensions.

Mayorga C, Athalye SM, Boodaghidizaji M, Sarathy N, Hosseini M, Ardekani A, Verma MS.Anal Chem. 2025 Apr 29;97(16):8908-8914. doi: 10.1021/acs.analchem.5c00182. Epub 2025 Apr 14.PMID: 40228800

Epidemiological Analysis of HPV Infection in Zhangjiagang, Southern Jiangsu Province of China: A Cross-Sectional Study.

Rui Q, Zhu X, Xu G.Int J Microbiol. 2025 Apr 19;2025:5576260. doi: 10.1155/ijm/5576260. eCollection 2025.PMID: 40290128

Lactobacillus paracasei Expressing Porcine Trefoil Factor 3 and Epidermal Growth Factor: A Novel Approach for Superior Mucosal Repair.

Yin F, Chen Y, Zhang H, Zhao H, Li X, Wang Z, Meng W, Zhao J, Tang L, Li Y, Li J, Wang X.Vet Sci. 2025 Apr 14;12(4):365. doi: 10.3390/vetsci12040365.PMID: 40284867

Structure and Antigenicity of Kaposi's Sarcoma-Associated Herpesvirus Glycoprotein B.

Fang XY, Sun C, Xie C, Cheng BZ, Lu ZZ, Zhao GX, Sui SF, Zeng MS, Liu Z.Adv Sci (Weinh). 2025 Apr 26:e2502231. doi: 10.1002/advs.202502231. Online ahead of print.PMID: 40285648

Genomic analysis of Varicella zoster virus strains during an outbreak with atypical clinical presentations in Biswanath district of Assam, India.

Sarmah K, Sharma A, Sarma K, Alam ST, Dutta BS, Deka E, Laskar SA, Tishya NS, Priya MSL, Baishya AC.Virus Genes. 2025 Apr 12. doi: 10.1007/s11262-025-02156-0. Online ahead of print.PMID: 40220111

Gender roles in ruminant disease management in Uganda: Implications for the control of peste des petits ruminants and Rift Valley fever.

Namatovu J, Lule P, Asindu M, Campbell ZA, Tumusiime D, Kiara H, Bett B, Roesel K, Ouma E.PLoS One. 2025 Apr 25;20(4):e0320991. doi: 10.1371/journal.pone.0320991. eCollection 2025.PMID: 40279338

In Silico-Based Investigation of the Immunogenicity and Biochemical Attributes of *Toxoplasma gondii* Apical Membrane Antigen 1 (TgAMA1).

Foroutan M, Ghaffari AD, Ghaffarifar F, Karimipour-Saryazdi A, Birgani AA, Majidiani H, Cortes H, Elsheikha HM.J Parasitol Res. 2025 Apr 12;2025:3514414. doi: 10.1155/japr/3514414. eCollection 2025.PMID: 40255910

Development of a reverse genetics system for Getah virus and characterization of rescued strains.

Cai R, He Q, Wang Q, Tian L, Chen Z, Wu X, Sun J, Shao Y, Song X, Qi K, Tu J, Wang Z.Vet Res. 2025 Apr 12;56(1):80. doi: 10.1186/s13567-025-01515-x.PMID: 40221809

Graphene Oxide-Modified Resin for Selective dsRNA Removal from In Vitro-Transcribed mRNA.

Ryu J, Namgung J, Jang J, Lee G, Yoo K, Jun BH, Kim DE.ACS Appl Bio Mater. 2025 Apr 21;8(4):3541-3551. doi: 10.1021/acsabm.5c00320. Epub 2025 Mar 27.PMID: 40150800

Isolation and molecular characterization of Mycoplasma ovipneumoniae associated with respiratory infection in sheep and goats in South India.

Udhayavel S, Sukumar K, Senthilkumar K, Srinivasan P, Elango A.Braz J Microbiol. 2025 Apr 26. doi: 10.1007/s42770-025-01663-4. Online ahead of print.PMID: 40287597

The Recombinant Immunodominant Regions 179-344 and 550-670 from SARS-COV2 Spike protein can efficiently react with patients' sera.

Lotfian S, Soleimani A, Taromchi AH, Sabzehei F, Dinmohammadi H, Nedaei K.Microb Pathog. 2025 Apr 24:107604. doi: 10.1016/j.micpath.2025.107604. Online ahead of print.PMID: 40287104

Cholera in Sub-Saharan Africa: Unveiling neglected drivers and pathways to elimination.

Siamalube B, Ehinmitan E, Runo S, Ngotho M, Onguso J.PLoS Negl Trop Dis. 2025 Apr 23;19(4):e0013029. doi: 10.1371/journal.pntd.0013029. eCollection 2025 Apr.PMID: 40267060

Systematic review and meta-analysis of interventions to increase the uptake of vaccines recommended during pregnancy.

Regan AK, Uwimana H, Rowe SL, Olsanska EJ, Agnew B, Castillo E, Fiddian-Green A, Giles ML.NPJ Vaccines. 2025 Apr 19;10(1):76. doi: 10.1038/s41541-025-01120-1.PMID: 40253502

Age- and agro-climatic zone-specific variations in post-vaccinal antibody responses to FMD vaccination in bovine populations: a longitudinal study from Karnataka, India.

Hiremath JB, Bhat R, Bhavana GB, Awati S, Mannapur SB, Gundallahalli MR, Patil SS, S P S, Hemadri D, K P S, Subramaniam S, Hegde R, H R.Vet Res Commun. 2025 Apr 16;49(3):167. doi: 10.1007/s11259-025-10737-5.PMID: 40237891

Immunogenicity and safety of different immunisation schedules of the VLA15 Lyme borreliosis vaccine candidate in adults, adolescents, and children: a randomised, observer-blind, placebo-controlled, phase 2 trial.

Wagner L, Obersriebnig M, Kadlecek V, Hochreiter R, Ghadge SK, Larcher-Senn J, Hegele L, Maguire JD, Derhaschnig U, Jaramillo JC, Eder-Lingelbach S, Bézay N.Lancet Infect Dis. 2025 Apr 25:S1473-3099(25)00092-1. doi: 10.1016/S1473-3099(25)00092-1. Online ahead of print.PMID: 40294611

Contribution of critical amino acid residues in the RNA-dependent RNA polymerase to the replication fidelity and viral ribavirin sensitivity of porcine reproductive and respiratory syndrome virus.

Zhang X, Yang Z, Zhang Z, Wang Z, Zhao Y, Yang T, Gong J, Feng K, He J, Zheng Q, Hou J, Li P.Vet Res. 2025 Apr 19;56(1):83. doi: 10.1186/s13567-025-01517-9.PMID: 40253380

Visual recombinase aided amplification technology for detecting feline coronavirus.

Lu X, Cao Y, Zhang P, Chen X, Irwin DM, Shen Y.Vet J. 2025 Apr 12;312:106356. doi: 10.1016/j.tvjl.2025.106356. Online ahead of print.PMID: 40228788

The spread of the Delta variant in Catalonia during summer 2021: Modelling and interpretation.

Steinegger B, Burgio G, Castioni P, Granell C, Arenas A.J Infect Public Health. 2025 Apr 15;18(7):102771. doi: 10.1016/j.jiph.2025.102771. Online ahead of print.PMID: 40273511

CD4⁺ T-cell help delivery to monocyte-derived dendritic cells promotes effector differentiation of helper and cytotoxic T cells.

Bosma DMT, Busselaar J, Staal MD, Frijlink E, Mack M, Salerno F, Borst J.Immunol Lett. 2025 Apr 14;275:107022. doi: 10.1016/j.imlet.2025.107022. Online ahead of print.PMID: 40239818

The 15-Year Survival Advantage: Immune Resilience as a Salutogenic Force in Healthy Aging.

Manoharan MS, Lee GC, Harper N, Meunier JA, Restrepo MI, Jimenez F, Karekatt S, Branum AP, Gaitan AA, Andampour K, Smith AM, Mader M, Noronha M, Tripathy D, Zhang N, Moreira AG, Pandranki L; South Texas Veterans Health Care System (STVHCS) COVID-19 Clinical team; STVHCS COVID-19 Vaccine team;

STVHCS COVID-19 Convalescent care team; STVHCS Center for Personalized Medicine; Sanchez-Reilly S, Trinh HD, Barnett C, Angel L, Segal LN, Nicholson S, Clark RA, He W, Okulicz JF, Ahuja SK.Aging Cell. 2025 Apr 23:e70063. doi: 10.1111/acel.70063. Online ahead of print.PMID: 40264357

Immune-Based Therapies in Pancreatic Cancer: a Systematic Review of Ongoing Clinical Trials (2020-2022).

Hung JT, Mynam RS, Patel MA, Ozogbo S, LoConte NK, Kratz JD.J Gastrointest Cancer. 2025 Apr 22;56(1):103. doi: 10.1007/s12029-025-01194-z.PMID: 40259076

Association of Inhaled Corticosteroid Use with COVID-19 Severity and Hospitalization in Patients With and Without Respiratory Disease.

Leibovitch M, Oberman B, Cohen J, Strahl T, Yosef N, Reichenberg Y, Shlomi D.J Aerosol Med Pulm Drug Deliv. 2025 Apr 18. doi: 10.1089/jamp.2025.0004. Online ahead of print.PMID: 40250996

Recombinant Rv0222 protein from Mycobacterium tuberculosis regulates host Th9 differentiation function in vitro.

Aizezi M, Wusiman A, Kuerban K, Aimaierjiang R, Tuohetaerbaike B, Guo B, Aimulajiang K.Microb Pathog. 2025 Apr 14;204:107593. doi: 10.1016/j.micpath.2025.107593. Online ahead of print.PMID: 40239724

Biochemical characterization and activity profiling of recombinant phospholipase A2 from Hemiscorpius lepturus expressed in E. coli with in vivo antibody response.

Najafi M, Shahbazzadeh D, Yaghmaie P, Mirzahoseini H.Sci Rep. 2025 Apr 26;15(1):14609. doi: 10.1038/s41598-025-98261-z.PMID: 40287457

[Agreement on pandemics and access to vaccines for low- and middle-income countriesAcuerdo sobre el acceso a las vacunas durante las pandemias para los países de ingresos bajos y medianos].

de Abreu AJL, Ventura DFL, Waldman EA.Rev Panam Salud Publica. 2025 Apr 28;49:e42. doi: 10.26633/RPSP.2025.42. eCollection 2025.PMID: 40297217

Neutralizing antibodies against the Japanese encephalitis virus are produced by a 12 kDa E. coli- expressed envelope protein domain III (EDIII) tagged with a solubility-controlling peptide.

Islam MD, Islam MM, Inoue A, Yesmin S, Brindha S, Yoshizue T, Tsurui H, Kurosu T, Kuroda Y.Vaccine. 2025 Apr 22;56:127143. doi: 10.1016/j.vaccine.2025.127143. Online ahead of print.PMID: 40267616

Innovations in Antimalarial Drug Discovery: New Targets and Leads.

Jeena N, Panicker L, Khan IA.Curr Drug Targets. 2025 Apr 18. doi: 10.2174/0113894501380738250414111540. Online ahead of print.PMID: 40257030

Pre-Human Immunodeficiency Virus (HIV) α4β7hi CD4+ T Cells and HIV Risk Among Heterosexual Individuals in Africa.

Omole TE, Nguyen HM, Marcinow A, Oo MM, Jahan N, Ssemaganda A, Severini G, Thomas KK, Celum C, Mugo N, Mujugira A, Kublin J, Corey L, Sivro A, Lingappa JR, Gray G, McKinnon LR.J Infect Dis. 2025 Apr 15;231(4):e770-e780. doi: 10.1093/infdis/jiae638.PMID: 39720913

Transformer-based deep learning enables improved B-cell epitope prediction in parasitic pathogens: A proof-of-concept study on Fasciola hepatica.

Hu RS, Gu K, Ehsan M, Abbas Raza SH, Wang CR.PLoS Negl Trop Dis. 2025 Apr 29;19(4):e0012985. doi: 10.1371/journal.pntd.0012985. Online ahead of print.PMID: 40300022

Lipid nanoparticles with prazole adjuvant to enhance the efficacy of mRNA cancer vaccines.

Kim YA, Jeong H, Kim H, Kim KS, Na K.J Control Release. 2025 Apr 21:113756. doi: 10.1016/j.jconrel.2025.113756. Online ahead of print.PMID: 40268197

677

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Share

Integrating Affinity Chromatography in the Platform Process for Adenovirus Purification.

Wu Y, Barbieri E, Smith WK, Minzoni A, Kilgore RE, Chu W, Daniele MA, Menegatti S.Biotechnol Bioeng. 2025 Apr 22. doi: 10.1002/bit.29006. Online ahead of print.PMID: 40263775

Rabies Post-Exposure Treatment in Metropolitan Sydney Residents, 2013-2023: A Retrospective Case-Series Analysis.

Self A, McNeill T, Ingleton A, Browne TR, Gupta L.Travel Med Infect Dis. 2025 Apr 19:102856. doi: 10.1016/j.tmaid.2025.102856. Online ahead of print.PMID: 40258528

Immunostimulant effect of heat-inactivated Mycobacterium bovis in mice challenged with vector-borne pathogens.

Ferreras-Colino E, de la Fuente J, Couto J, Golovchenko M, Antunes S, Sevilla IA, Domingos A, Rudenko N, Contreras M, Martínez-Camacho R, Gortazar C, Risalde MA.Vaccine. 2025 Apr 19;53:127076. doi: 10.1016/j.vaccine.2025.127076. Epub 2025 Apr 5.PMID: 40188566

Maternal Transfer of Oral Vaccine Induced Anti-OspA Antibodies Protects Peromyscus spp Pups from Tick-Transmitted Borrelia burgdorferi.

Azevedo JF, Joyner G, Kundu S, Samanta K, Gomes-Solecki M.bioRxiv [Preprint]. 2025 Apr 23:2025.02.24.639966. doi: 10.1101/2025.02.24.639966.PMID: 40060546

RSV explorations: using a case series focused on a single microbe to connect concepts across an undergraduate microbiology course.

Tremaglio C, Dube D.J Microbiol Biol Educ. 2025 Apr 24;26(1):e0010824. doi: 10.1128/jmbe.00108-24. Epub 2024 Dec 13.PMID: 39670760

Knowledge and Adherence to Lifestyle Habits to Prevent Complications Associated With Immunosuppression in Kidney Transplant Recipients: A Single-Center Survey.

Ruiz-Merlo T, Rodríguez-Goncer I, López-Medrano F, Polanco N, González E, Trujillo H, Fayos M, Redondo N, San Juan R, Andrés A, Aguado JM, Fernández-Ruiz M.Transpl Infect Dis. 2025 Apr 26:e70038. doi: 10.1111/tid.70038. Online ahead of print.PMID: 40285521

B cell-expressed CD1d promotes MPL/TDCM lipid emulsion adjuvant effects in polysaccharide vaccines.

Jennings-Gee JE, Daly CA, Bray AS, Dyevoich AM, Spurrier MA, Haas KM.J Immunol. 2025 Apr 25:vkaf074. doi: 10.1093/jimmun/vkaf074. Online ahead of print.PMID: 40280183

An overview of the role of steroid hormones in various parasitic infections.

Shaukat A, Aleem MT, Munir F, Gao F, Su RW.J Reprod Immunol. 2025 Apr 14;169:104533. doi: 10.1016/j.jri.2025.104533. Online ahead of print.PMID: 40267633

Molecular serotyping and antimicrobial susceptibility profiles of Pasteurella multocida isolated from cases of hemorrhagic septicemia in cattle from selected districts of Keffa and Bench Sheko zones, South West Ethiopia.

Bitew Z, Abayneh Tefera T, Deneke Y, T/Mariam T, Yihunie FB.BMC Microbiol. 2025 Apr 17;25(1):224. doi: 10.1186/s12866-025-03947-z.PMID: 40247164

A dissolvable microneedle platform for the delivery of tumor-derived total RNA nanovaccines for enhanced tumor immunotherapy.

Wang J, Huang S, Wei H, Liang S, Ding Y, Xiao Z, Shuai X.Acta Biomater. 2025 Apr 22:S1742-7061(25)00294-6. doi: 10.1016/j.actbio.2025.04.039. Online ahead of print.PMID: 40274056

Kyasanur Forest disease virus non-structural protein NS1 forms multimers in solution, with a distinctly identifiable tetrameric state.

Gupta R, Sharma S, Saroj A, Madhukalya R, Kumar V, Agarwal V, Kumar D, Mangala Prasad V, Kumar R.Biochimie. 2025 Apr 17;234:89-94. doi: 10.1016/j.biochi.2025.04.005. Online ahead of print.PMID: 40252820

Self-Assembling protein nanoparticle platform for multivalent antigen delivery in vaccine development.

Wu H, Weng R, Li J, Huang Z, Tie X, Li J, Chen K.Int J Pharm. 2025 Apr 13;676:125597. doi: 10.1016/j.ijpharm.2025.125597. Online ahead of print.PMID: 40233885

Mapping Immunological, Host Receptor Binding Determinants, and Cathepsin Cleavage Site of EBOV Glycoprotein Utilizing the Qubevirus Platform.

Ntemafack A, Dzelamonyuy A, Nchinda G, Bopda Waffo A.ACS Omega. 2025 Mar 31;10(14):14283-14295. doi: 10.1021/acsomega.5c00408. eCollection 2025 Apr 15.PMID: 40256529

Effect of Bacillus Calmette-Guérin vaccination against Mycobacterium tuberculosis infection in children: an updated systematic review and meta-analysis.

Cai S, Luo Q, Zhou G, Guo X, Dong Y, Chen H, Luo S, He J, Xia Y, Li H, Zhou Y, Song C.Int J Infect Dis. 2025 Apr 16:107909. doi: 10.1016/j.ijid.2025.107909. Online ahead of print.PMID: 40250749

Functional identification of Annexin B1 and Annexin B2 from Cysticercus cellulosae and their mechanism in plasma membrane repair.

He P, Zhang D, Wang M, Duan R, Zhao Y, Wang S, Yang X, Liu X, Sun S.PLoS Negl Trop Dis. 2025 Apr 17;19(4):e0013015. doi: 10.1371/journal.pntd.0013015. eCollection 2025 Apr.PMID: 40245019

Evaluation of three real-time PCR methods for the detection and the differentiation of Bordetella pertussis, Bordetella parapertussis and Bordetella holmesii.

Cherkaoui S, Wautier M, Martini H, Dahma H, van den Wijngaert S, Martiny D, Yin N.Eur J Clin Microbiol Infect Dis. 2025 Apr 16. doi: 10.1007/s10096-025-05129-1. Online ahead of print.PMID: 40240689

Determinants of Foot and Mouth Virus in Eastern Algeria.

Ghougal K, Azizi A, Baghezza S.Trop Anim Health Prod. 2025 Apr 11;57(3):167. doi: 10.1007/s11250-025-04413-8.PMID: 40214836

Persistent socioeconomic disparities in childhood vaccination coverage in Tanzania: Insights from multiple rounds of demographic and health surveys.

Bendera A, Nakamura K, Tran XMT, Kapologwe NA, Bendera E, Mahamba D, Meshi EB.Vaccine. 2025 Apr 11;52:126904. doi: 10.1016/j.vaccine.2025.126904. Epub 2025 Feb 24.PMID: 39999540

Deposition of complement regulators on the surface of Plasmodium falciparum merozoites depends on the immune status of the host.

Bassi MR, Cristinoi B, Buitenwerf F, Cuadrado MB, Björnsson KH, Walker MR, Partey FD, Ward AB, Ofori MF, Barfod L.PLoS Pathog. 2025 Apr 28;21(4):e1013107. doi: 10.1371/journal.ppat.1013107. Online ahead of print.PMID: 40294075

COVID-19 mRNA-1273 vaccination induced mast cell activation with strongly elevated Th_2 cytokines in a systemic mastocytosis patient.

Weiss-Tessbach M, Haider T, Gowran A, Schubert L, Mühlbacher J, Brankovic J, Wahrmann M, Jilma B, Boehm T.Inflamm Res. 2025 Apr 29;74(1):71. doi: 10.1007/s00011-025-02032-5.PMID: 40299000

Chandipura Virus Resurgence in India: Insights Into Diagnostic Tools, Antiviral Development, and Public Health Implications.

Akingbola A, Adegbesan A, Adegoke K, Chuku J, Ojo O, Mariaria P, Alao U, Salami RA, Oladunjoye M.Glob Health Epidemiol Genom. 2025 Apr 21;2025:1015031. doi: 10.1155/ghe3/1015031. eCollection 2025.PMID: 40297516

Investigation of the inhibitory effects of immunoglobulin Y antibody against key epitopes of Helicobacter pylori UreB recombinant protein.

Esmaeili Z, Kamal Shahsavar S, Ariannejad H, Hajinajaf N, Menbari S, Ghazvini K.Microb Pathog. 2025 Apr 17;204:107613. doi: 10.1016/j.micpath.2025.107613. Online ahead of print.PMID: 40252938

Genome-wide association mapping of scuticociliatosis resistance in a vaccinated population of olive flounder (Paralichthys olivaceus).

Kodagoda YK, Kim G, Liyanage DS, Omeka WKM, Park C, Kim J, Lee JH, Hanchapola HACR, Dilshan MAH, Rodrigo DCG, Jones DB, Massault C, Jerry DR, Lee J.Fish Shellfish Immunol. 2025 Apr 14;162:110339. doi: 10.1016/j.fsi.2025.110339. Online ahead of print.PMID: 40239929

Role of antiviral CD8+ T cell immunity to SARS-CoV-2 infection and vaccination.

Karl V, Hofmann M, Thimme R.J Virol. 2025 Apr 15;99(4):e0135024. doi: 10.1128/jvi.01350-24. Epub 2025 Mar 3.PMID: 40029063

Tuning lipid nanocarrier mechanical properties to improve glioblastoma targeting and blood brain barrier penetration.

Robles-Fernández A, Jiménez-Boland D, Leon-Cecilla A, Villegas-Montoya M, Traverso JÁ, Cuadros MA, Martín-Rodríguez A, Lopez-Lopez MT, Bramini M, Moraila-Martínez CL, Sánchez-Moreno P.Nanoscale. 2025 Apr 28. doi: 10.1039/d5nr00984g. Online ahead of print.PMID: 40293789

Changes in the attitude of health care professionals towards influenza vaccination after the COVID-19 pandemic.

Sánchez-Zaballos M, Zuazua-Rico D, Alonso-Méndez L, Queipo-Herías Y, Mosteiro-Díaz MP, Maestro-Gonzalez A.Enferm Clin (Engl Ed). 2025 Apr 23:502189. doi: 10.1016/j.enfcle.2025.502189. Online ahead of print.PMID: 40280236

Diagnostic Challenges in Detecting Rubella Viral RNA in Cases of Congenital Rubella Syndrome Using RT-PCR in the Era of Elimination.

Herini ES, Triono A, Iskandar K, Nurputra DK, Nugrahanto AP, Korompis M, Nuady A, Anggraini A, Indraswari BW, Arafuri N, Prasetyo A.Pediatr Infect Dis J. 2025 Apr 29. doi: 10.1097/INF.0000000000004839. Online ahead of print.PMID: 40298435

Risk Factors for Poor Outcomes in Pediatric Bacterial Meningitis With Cerebrospinal Fluid Shunts: A Nationwide Surveillance in Japan.

Yaginuma M, Furuichi M, Shinjoh M.Pediatr Infect Dis J. 2025 Apr 17. doi: 10.1097/INF.0000000000004834. Online ahead of print.PMID: 40249832

Population immunity enhances the evolution of SARS-CoV-2 in Beijing revealed by wastewater genomic surveillance.

Wang C, Chen W, Yu L, Wang X, Zhang L, Zhang X, Tang S, Han J, Gao W, Huang X, Zhang Y, An W, Yang M, Tian Z.Water Res. 2025 Apr 13;282:123649. doi: 10.1016/j.watres.2025.123649. Online ahead of print.PMID: 40245799

Fitting dynamic measles models to subnational case notification data from Ethiopia: Methodological challenges and key considerations.

Sbarra AN, Haeuser E, Kidane S, Abate A, Abebe AM, Ahmed M, Alemayehu T, Amsalu E, Aravkin AY, Asgedom AA, Bayleyegn N, Dagnew M, Demisse B, Etafa W, Fetensa G, Gebremeskel TG, Geremew H, Gizaw AT, Hunde GA, Meles HN, Migbar S, Nguyen JQ, Nigussie E, Ramshaw RE, Rolfe S, Sahiledengle B, Shalev N, Solomon Y, Tesfaye L, Yesera GE, Jit M, Mosser JF.PLoS Comput Biol. 2025 Apr 16;21(4):e1012922. doi: 10.1371/journal.pcbi.1012922. eCollection 2025 Apr.PMID: 40238774

Herpes simplex virus 1 envelope glycoprotein C shields glycoprotein D to protect virions from entry-blocking antibodies.

Hull MA, Pritchard SM, Nicola AV.J Virol. 2025 Apr 15;99(4):e0009025. doi: 10.1128/jvi.00090-25. Epub 2025 Mar 26.PMID: 40135897

A Surrogate Enzyme-Linked Immunosorbent Assay to Select High-Titer Human Convalescent Plasma for Treating Immunocompromised Patients Infected With Severe Acute Respiratory Syndrome Coronavirus 2 Variants of Concern.

Dolange V, Slamanig S, Abdeljawad A, Lai TY, Lemus N, Singh G, Carreño JM, Abbad A, Srivastava K, Simon V, Sachithanandham J, Pekosz A, Sullivan D, Krammer F, Sun W, Palese P, González-Domínguez I.J Infect Dis. 2025 Apr 15;231(4):e723-e733. doi: 10.1093/infdis/jiae645.PMID: 39749487

Molecular Epidemiology of Human Adenovirus from Acute Gastroenteritis Cases in Brazil After the COVID-19 Pandemic Period, 2021-2023.

Mello MS, Malta FC, Fialho AM, Burlandy FM, Fumian TM.Viruses. 2025 Apr 17;17(4):577. doi: 10.3390/v17040577.PMID: 40285019

Measles Update - United States, January 1-April 17, 2025.

Mathis AD, Raines K, Filardo TD, Wiley N, Leung J, Rota PA, Martinez D, Rai S, Shetty V, Holzinger N, Stanislawski E, Daskalakis DC, Chatham-Stephens K, Patel M, Sugerman D.MMWR Morb Mortal Wkly Rep. 2025 Apr 24;74(14):232-238. doi: 10.15585/mmwr.mm7414a1.PMID: 40273019

A Self-Assembled Nanovaccine with BA.4/5 Receptor-Binding Domain and CpG Oligodeoxynucleotides Induces Broad-Spectrum Neutralization against SARS-CoV-2 Omicron Subvariants.

Yang C, Li E, Guo X, Xie W, Wang Y, Huang X, Chiu S, Wu X.ACS Nano. 2025 Apr 23. doi: 10.1021/acsnano.4c17269. Online ahead of print.PMID: 40265996

Rapid detection of systemic and mucosal antibody responses to COVID-19 infection or vaccination.

Schmidt VA, Stevens VR, Rivieccio M, Sikar-Gang A, Simonetti K, Gunasekera D, Esfandiari J, Lyashchenko KP.Int Immunopharmacol. 2025 Apr 24;153:114512. doi: 10.1016/j.intimp.2025.114512. Epub 2025 Mar 24.PMID: 40132457

Helicobacter pylori outer membrane vesicles mediate central tolerance in C57BL/6J mice offspring T cells via maternal-fetal transmission.

Wei Y, Zhou L, Zhao X, Qiu H, Hu D, Shi Z.Front Immunol. 2025 Apr 15;16:1522842. doi: 10.3389/fimmu.2025.1522842. eCollection 2025.PMID: 40303395

A novel replicase-mediated self-amplifying RNA amplification mechanism of the SARS-CoV-2 replication-transcription system.

Liu HL, Lin S, Hung W, Chang DC, Lin SL.Biochem Biophys Res Commun. 2025 Apr 12;758:151654. doi: 10.1016/j.bbrc.2025.151654. Epub 2025 Mar 18.PMID: 40117978

A counterfactual analysis quantifying the COVID-19 vaccination impact in Sweden.

Bergström F, Günther F, Britton T.Vaccine. 2025 Apr 11;52:126870. doi: 10.1016/j.vaccine.2025.126870. Epub 2025 Feb 20.PMID: 39983319

Herpes zoster incidence and burden in older Chinese: a systematic review and meta-analysis.

Zheng B, Yin D, Geng Y, Li Q, Cao W, Yin M, Ning Y, Petersen JD.BMC Public Health. 2025 Apr 22;25(1):1494. doi: 10.1186/s12889-025-22703-6.PMID: 40264149

Risk assessment of 2024 cattle H5N1 using age-stratified serosurveillance data.

Chen LL, Zhang X, Zhang K, Chan BP, Yuk Yuen JK, Yuen KY, Wang P, Yang YR, Chen H, To KK.Emerg Microbes Infect. 2025 Apr 22:2497304. doi: 10.1080/22221751.2025.2497304. Online ahead of print.PMID: 40262547

Serotype epidemiology and case-fatality risk of invasive pneumococcal disease: a nationwide population study from Switzerland, 2012-2022.

Albrich WC, Just N, Kahlert C, Casanova C, Baty F, Hilty M.Emerg Microbes Infect. 2025 Dec;14(1):2488189. doi: 10.1080/22221751.2025.2488189. Epub 2025 Apr 24.PMID: 40167153

Characterization, microRNA profiling, and immunomodulatory role of plasma-derived exosomes from olive flounder (Paralichthys olivaceus) in response to viral hemorrhagic septicemia virus.

Nikapitiya C, Jayathilaka EHTT, Edirisinghe SL, Oh C, De Zoysa M.Fish Shellfish Immunol. 2025 Apr 15;162:110316. doi: 10.1016/j.fsi.2025.110316. Online ahead of print.PMID: 40239934

Post-Omicron SARS-CoV-2 antibody prevalence in Sierra Leone: A cross-sectional, nationally representative, follow-up serosurvey.

Chitre S, Barrie MB, Kanu JS, Conteh TS, Bayoh M, Kamara MN, Bangura HF, Lascher JS, Frankfurter R, Goldberg SA, Glidden DV, Kelly JD, Lakoh S, Richardson ET.PLOS Glob Public Health. 2025 Apr 16;5(4):e0004273. doi: 10.1371/journal.pgph.0004273. eCollection 2025.PMID: 40238730

Independent effect of influenza vaccination on all-cause mortality in critically ill patients with atrial fibrillation: A retrospective study from the MIMIC-IV database.

Lei J, Zheng LZ, Chen KY, Yang X, Tian Y, Qiu ZH, Chen LW.Int J Cardiol. 2025 Apr 11;433:133246. doi: 10.1016/j.ijcard.2025.133246. Online ahead of print.PMID: 40222658

UV1 vaccination in pembrolizumab-treated patients with recurrent or metastatic head and neck cancer: A randomized multicenter phase 2 trial.

Brandt A, Klinghammer K, Schultheiss C, Paschold L, Wickenhauser C, Bauer M, Bergqvist A, Hahn D, Schafhausen P, Tometten M, Blaurock M, Zech HB, Busch CJ, Dietz A, Müller-Richter U, Alt J, Boehm A, Kowoll S, Steighardt J, Lasch A, Westgaard IH, Westhrin M, Stein A, Hinke A, Binder M.Med. 2025 Apr 11:100647. doi: 10.1016/j.medj.2025.100647. Online ahead of print.PMID: 40220758

SARS-CoV-2 neutralizing antibody specificities differ dramatically between recently infected infants and immune-imprinted individuals.

Dadonaite B, Burrell AR, Logue J, Chu HY, Payne DC, Haslam DB, Staat MA, Bloom JD.J Virol. 2025 Apr 15;99(4):e0010925. doi: 10.1128/jvi.00109-25. Epub 2025 Mar 25.PMID: 40130874

An Italian cost-utility analysis of 20-Valent pneumococcal conjugate vaccine for routine vaccination in infants.

Basile M, Rumi F, Fortunato A, Antonini D, Di Virgilio R, Novelli G, Pagliaro A, Di Brino E.J Med Econ. 2025 Apr 21:1-22. doi: 10.1080/13696998.2025.2495461. Online ahead of print.PMID: 40257854

Sphingosine-1-phosphate signaling mediates shedding of measles virus-infected respiratory epithelial cells.

Brockhurst JK, Salciccioli BE, Griffin DE.J Virol. 2025 Apr 15;99(4):e0188024. doi: 10.1128/jvi.01880-24. Epub 2025 Mar 27.PMID: 40145737

Molecular Epidemiology of Invasive Group B Streptococcus in South Africa, 2019-2020.

Ntozini B, Walaza S, Metcalf B, Hazelhurst S, de Gouveia L, Meiring S, Mogale D, Mtshali S, Ismail A, Ndlangisa K, Du Plessis M, Quan V, Chochua S, McGee L, von Gottberg A, Wolter N.J Infect Dis. 2025 Apr 15;231(4):e697-e707. doi: 10.1093/infdis/jiae633.PMID: 39737783

Residual risk of hepatitis B virus (HBV) mother-to-child transmission and gaps in HBV care cascades among pregnant women in The Gambia: the INFANT-B study.

Ndow G, Bangura R, Vo-Quang E, Touray F, Jatta A, Barry J, Mahmoud I, Bah S, Nyassi FB, Ceesay A, Bola-Lawal Q, Touray AB, Drammeh S, Cham H, Bojang L, Cloherty G, Lo G, Bittaye M, Badjie S, Toure-Kane C, D'Alessandro U, Shimakawa Y, Lemoine M.J Infect Dis. 2025 Apr 30:jiaf214. doi: 10.1093/infdis/jiaf214. Online ahead of print.PMID: 40304086

Effects of replacing antibiotics with probiotics and antimicrobial peptides on performance, gut health, carcass traits, meat quality, and welfare in broilers infected with Eimeria and Clostridium perfringens.

Muneeb M, Khan EU, Ali M, Suleman M, Shaheen MS, Zafar MS, Ahmad S.Trop Anim Health Prod. 2025 Apr 24;57(4):184. doi: 10.1007/s11250-025-04441-4.PMID: 40272630

Global, regional, and national trends of measles burden and its vaccination coverage among children under five years old: an updated systematic analysis from the Global Burden of Disease study 2021.

Chen W, Du M, Deng J, Liu M, Liu J.Int J Infect Dis. 2025 Apr 15:107908. doi: 10.1016/j.ijid.2025.107908. Online ahead of print.PMID: 40246060

Strengthening the role of community pharmacy in HPV vaccination roll-out in Serbia at national and local levels: A pharmacy-based education approach.

Rapajić-Moran I, Filipić B, Rajković D, Rakić M, Stojiljković D, Letić B, Urošević J, Bogavac-Stanojević N.PLoS One. 2025 Apr 29;20(4):e0322584. doi: 10.1371/journal.pone.0322584. eCollection 2025.PMID: 40299854

Uptake of second dose measles containing vaccine and associated factors among children aged 24-35 months in central Ethiopia: a community based cross-sectional study.

Mulatu A, Tsega Y, Cherie N, Kasaye MD, Mekonen AM.BMC Public Health. 2025 Apr 21;25(1):1470. doi: 10.1186/s12889-025-22750-z.PMID: 40259257

Penile human papillomavirus prevalence in circumcised sexual minority men living with and without HIV.

Nampota-Nkomba N, Mohanty K, Adebiyi R, Ekeh C, Schumaker LM, Suleiman KT, Powell L, Lombardi K, Ambulos NP, Shoyemi E, Tiamiyu AB, Homan MG, Sajadi MM, Bentzen SM, Cullen KJ, Crowell TA, Nowak RG; TRUST/RV368 Study Group.AIDS. 2025 Apr 15. doi: 10.1097/QAD.0000000000004209. Online ahead of print.PMID: 40239119

COVID-19 and influenza hospitalizations and the role of COVID-19 vaccination in the post-pandemic period: A cross-sectional study from Saudi Arabia.

Sheerah HA, Al-Jedai AH, Al-Jerian NA, Al-Otaiby MA, Al-Seraihi AF, Al-Huzami SA, Al-Qahtani SA, Zaatari ES.Vaccine. 2025 Apr 11;52:126937. doi: 10.1016/j.vaccine.2025.126937. Epub 2025 Feb 26.PMID: 40014982

Reprogramming the breast tumor immune microenvironment: cold-to-hot transition for enhanced immunotherapy.

Imani S, Farghadani R, Roozitalab G, Maghsoudloo M, Emadi M, Moradi A, Abedi B, Jabbarzadeh Kaboli P.J Exp Clin Cancer Res. 2025 Apr 25;44(1):131. doi: 10.1186/s13046-025-03394-8.PMID: 40281554

Preconception Oral Health Is Associated with Modifiable Health Behaviors.

Bond JC, Simancas-Pallares MA, Divaris K, Garcia RI, Fox MP, Wise LA, Heaton B.J Dent Res. 2025 Apr 20:220345251325216. doi: 10.1177/00220345251325216. Online ahead of print.PMID: 40254774

Epidemiological characteristics and genomic analysis of respiratory adenovirus in Jining City from February 2023 to July 2024.

Dou H, Chen C, Song T, Sun X, He F, Jia Y, Wang X, Jiang Y, Yue Y, Huang S, Yan S, Jiao B, Jiao B.BMC Genomics. 2025 Apr 14;26(1):369. doi: 10.1186/s12864-025-11558-1.PMID: 40229673

Efficacy of monoclonal antibodies and maternal vaccination for prophylaxis of respiratory syncytial virus disease.

Plock N, Sachs JR, Zang X, Lommerse J, Vora KA, Lee AW, Cheung SYA, Maas BM.Commun Med (Lond). 2025 Apr 16;5(1):119. doi: 10.1038/s43856-025-00807-9.PMID: 40240559

African swine fever virus I177L induces host inflammatory responses by facilitating the TRAF6-TAK1 axis and NLRP3 inflammasome assembly.

Wu P-X, Yang W-P, Feng T, Zhang J, Zhu G-Q, Du X-G, Ru Y, Zhao Y-F, Wu S, Li D, Zheng H-X.J Virol. 2025 Apr 15;99(4):e0208024. doi: 10.1128/jvi.02080-24. Epub 2025 Mar 26.PMID: 40135893

The association between healthy walking and COVID-19 symptom severity: A cross-sectional study on the first peak following China's prevention policy change.

Xia W, Zheng D, Chen X, Yu L, Jiang X, Fan M, Zou H, Li C, Liu M, Zhao Y, Kang J.BMC Public Health. 2025 Apr 23;25(1):1497. doi: 10.1186/s12889-025-22748-7.PMID: 40269852

Follow-up of long COVID based on the definition of WHO: a multi-centre cross-sectional questionnaire-based study.

Yan D, Liu Y, Chen R, Zhou L, Wang C, Ma AHY, Chen X, Song Q, Qian G.BMC Public Health. 2025 Apr 15;25(1):1412. doi: 10.1186/s12889-025-22671-x.PMID: 40234823

Soluble-microneedle enhance three T-cell activation signals as efficient tumor vaccines for melanoma prevention and treatment.

Li N, Mu W, Xia Z, Ma Q, Feng R, Gu P, Yang Q, Gao S, Zhang W, Wei S, Zheng Y, Zhao W, Liu Y, Zhang N.J Control Release. 2025 Apr 13:113726. doi: 10.1016/j.jconrel.2025.113726. Online ahead of print.PMID: 40233828

Sheep challenged with sheep-derived type II Mycobacterium avium subsp. paratuberculosis: the first experimental model of paratuberculosis in China.

Li MY, Meng WK, Ma W, Ding YL, Yang B, Zhao WH, Bayaer H, Bagen A, Chen RB, Tunala S, Zhang R, Du CG, Zhao L, Liu YH.BMC Vet Res. 2025 Apr 29;21(1):298. doi: 10.1186/s12917-025-04765-1.PMID: 40301886

Community engagement to support public health: mixed-method evaluation evidence on COVID-19 attitudes and practices in Lao PDR.

Haenssgen MJ, Elliott EM, Bode S, Souksavanh O, Xayyahong T, Okabayashi H, Kubota S.Glob Health Action. 2025 Dec;18(1):2485523. doi: 10.1080/16549716.2025.2485523. Epub 2025 Apr 25.PMID: 40277016

Changes in first-episode psychosis care delivery and outcomes throughout the COVID-19 pandemic: Insights from a learning healthcare system in Massachusetts.

Saluja A, Johnson KA, Öngür D, Lanca M, DeLisi LE, Mesholam-Gately RI, Guyer ME, Keshavan MS; MAPNET/LEAP Consortium.Schizophr Res. 2025 Apr 28;280:130-139. doi: 10.1016/j.schres.2025.04.010. Online ahead of print.PMID: 40300255

Association Between Herpes Simplex Virus Type 2 and High-Risk Human Papillomavirus Infections: A Population Study of the National Health and Nutrition Examination Survey, 2009-2016.

Liu C, Guo Y, Wang L, Guo R, Lei D.J Infect Dis. 2025 Apr 15;231(4):e650-e658. doi: 10.1093/infdis/jiaf033.PMID: 39812306

Recurrent Invasive Pneumococcal Disease in Children: a retrospective cohort study, England, 2006/07-2017/18.

Bertran M, Abdullahi F, D'Aeth JC, Amin-Chowdhury Z, Andrews NJ, Eletu S, Litt D, Ramsay ME, Oligbu G, Ladhani SN.J Infect. 2025 Apr 24:106490. doi: 10.1016/j.jinf.2025.106490. Online ahead of print.PMID: 40286915

Trends and inequalities in full immunisation coverage among one-year-olds in Sierra Leone, 2008-2019.

Osborne A, Bangura C, Sesay U, Ahinkorah BO.BMC Pediatr. 2025 Apr 23;25(1):320. doi: 10.1186/s12887-025-05644-2.PMID: 40269783

Long COVID and Associated Factors Among Chinese Residents Aged 16 Years and Older in Canada: A Cross-Sectional Online Study.

Shariati M, Gill KL, Peddle M, Cao Y, Xie F, Han X, Lei N, Prowse R, Shan D, Fang L, Huang V, Ding A, Wang PP.Biomedicines. 2025 Apr 13;13(4):953. doi: 10.3390/biomedicines13040953.PMID: 40299550

Host immune response to respiratory syncytial virus infection and its contribution to protection and susceptibility in adults: a systematic literature review.

Chaumont A, Martin A, Flamaing J, Wiseman DJ, Vandermeulen C, Jongert E, Doherty TM, Buchy P, Varga SM, Warter L.Expert Rev Clin Immunol. 2025 Apr 25. doi: 10.1080/1744666X.2025.2494658. Online ahead of print.PMID: 40278893

Functional implications of respiratory syncytial virus F sequence variability: a comparative analysis using contemporary RSV isolates.

Stobbelaar K, Jacobs L, Serrano-Cano FI, Fransen A, Van der Gucht W, Smet A, De Winter BY, Cos P, de Vos W, Van Hoorenbeeck K, Verhulst S, Delputte PL.mSphere. 2025 Apr 14:e0086024. doi: 10.1128/msphere.00860-24. Online ahead of print.PMID: 40227055

Association between infant feeding practices, COVID-19 related cognitive factors, and postpartum depression during the COVID-19 pandemic: a cross-sectional online study in Thailand.

Suriyawongpaisal W, Kittikul P, Lee EY, Chien LY, Chang YS, Coca KP, Buntup D, Hong SA.BMC Public Health. 2025 Apr 11;25(1):1366. doi: 10.1186/s12889-025-22672-w.PMID: 40217186

Role of glycosylation mutations at the N-terminal domain of SARS-CoV-2 XEC variant in immune evasion, cell-cell fusion, and spike stability.

Li P, Faraone JN, Hsu CC, Chamblee M, Liu Y, Zheng Y-M, Xu Y, Carlin C, Horowitz JC, Mallampalli RK, Saif LJ, Oltz EM, Jones D, Li J, Gumina RJ, Bednash JS, Xu K, Liu S-L.J Virol. 2025 Apr 15;99(4):e0024225. doi: 10.1128/jvi.00242-25. Epub 2025 Mar 26.PMID: 40135879

The WHO Bacterial Priority Pathogens List 2024: a prioritisation study to guide research, development, and public health strategies against antimicrobial resistance.

Sati H, Carrara E, Savoldi A, Hansen P, Garlasco J, Campagnaro E, Boccia S, Castillo-Polo JA, Magrini E, Garcia-Vello P, Wool E, Gigante V, Duffy E, Cassini A, Huttner B, Pardo PR, Naghavi M, Mirzayev F, Zignol

M, Cameron A, Tacconelli E; WHO Bacterial Priority Pathogens List Advisory Group.Lancet Infect Dis. 2025 Apr 11:S1473-3099(25)00118-5. doi: 10.1016/S1473-3099(25)00118-5. Online ahead of print.PMID: 40245910

Attention to COVID 19 pandemic resulted in increased measles cases and deaths in Zambia.

Mwangilwa K, Sialubanje C, Chipoya M, Mulenga C, Mwale M, Chileshe C, Sinyange D, Banda M, Gardner PN, Lamba L, Kalubula P, Simwanza J, Simwaba D, Kapata N, Mwanza J, Chipimo PJ, Mbewe N, Sinyange N, Fwemba I, Kapin'a M, Chilengi R.Trop Med Health. 2025 Apr 25;53(1):59. doi: 10.1186/s41182-025-00736-2.PMID: 40281501

Patentes registradas en Patentscope

Estrategia de búqueda: (Vaccine) AND DP:([11.04.2025 TO 30.04.2025]) *as the publication date 44 records.*

1.WO/2025/084869ADJUVANT COMPOSITION FOR VACCINE, COMPRISING GALECTIN-4 AS ACTIVE INGREDIENT

WO - 24.04.2025

Clasificación Internacional A61K 39/39Nº de solicitud PCT/KR2024/015946Solicitante CHUNG ANG UNIVERSITY INDUSTRY ACADEMIC COOPERATION FOUNDATIONInventor/a SEO, Young-Jin

The present invention relates to: an adjuvant composition for vaccine, comprising galectin-4 as an active ingredient, which, when administered together with an antigen, can improve antibody titer and enhance cellular immunity and humoral immunity; a vaccine composition comprising galectin-4 and an antigen; a method for promoting immune responses, comprising a step of administering the adjuvant composition for a vaccine to a subject together with the vaccine composition or before and after the administration of the vaccine composition; and a vaccine adjuvant composition for promoting immune responses, comprising galectin-4. The adjuvant composition for a vaccine, of the present invention, can increase antibody titer produced by an antigen and can increase both humoral and cellular immune responses, and thus can increase vaccine efficacy, can reduce the production cost of a vaccine by reducing the usage amount of antigen, and is expected to be applicable to cancer treatment vaccines.

2.WO/2025/082465RNA VACCINE FOR PORCINE EPIDEMIC DIARRHEA AND PREPARATION METHOD THEREFOR

WO - 24.04.2025

Clasificación Internacional A61K 39/215Nº de solicitud PCT/CN2024/125692Solicitante SUZHOU HUILIAO BIOMEDICAL TECHNOLOGY CO., LTD.Inventor/a ZHONG, Tianyi

Provided are an RNA vaccine for porcine epidemic diarrhea and a preparation method therefor. The RNA vaccine is obtained by means of gene synthesis, in-vitro transcription, and lipid nanoparticle encapsulation, which can rapidly respond to the currently prevalent new PEDV strains, reduces the research

and production cycle of new vaccine development, and provides an effective technical approach for the prevention and control of newly mutated highly virulent strains. The prepared RNA vaccine for porcine epidemic diarrhea has high production efficiency, can induce relatively high levels of porcine epidemic diarrhea virus neutralizing antibodies and binding antibodies in vivo, effectively reducing the occurrence of diarrhea in piglets, and thus holds great promotional value for the prevention and control of porcine epidemic diarrhea.

3.WO/2025/081515TUMOR NEOANTIGEN VACCINE SYSTEM SPECIFICALLY MARKING HETEROLOGOUS PROTEIN, AND USE THEREOF

WO - 24.04.2025

Clasificación Internacional A61K 39/00Nº de solicitud PCT/CN2023/125912Solicitante CHINA PHARMACEUTICAL UNIVERSITYInventor/a WANG, Wenguang

The present invention provides a tumor neoantigen vaccine system specifically marking a heterologous protein, and a use thereof. The vaccine system is composed of a heterologous protein mRNA vaccine and a recombinant oncolytic virus; the heterologous protein mRNA vaccine is used to induce an organism to generate heterologous protein-specific memory T cells, and the recombinant oncolytic virus is used to promote a tumor to express microorganism-derived tumor neoantigens. When pre-immunized memory T cells detect these marked specific neoantigens, the tumor expressing the neoantigens is quickly activated and killed, the release of tumor autoantigens is promoted, dendritic cells phagocytize antigens to further initiate an anti-tumor response, and a systemic anti-tumor immune effect is activated by means of antigenic epitope spreading.

4.2634646A BACTERIOPHAGE-BASED, NEEDLE AND ADJUVANT-FREE, MUCOSAL COVID-19 VACCINE

GB - 16.04.2025

Clasificación Internacional A61K 39/215Nº de solicitud 202416610Solicitante UNIV AMERICA CATHOLICInventor/a JINGEN ZHU

A bacteriophage T4-based, multivalent/multicomponent, needle and adjuvant-free, mucosal vaccine by engineering spike trimers on capsid exterior and nucleocapsid protein in the interior is disclosed herein. Intranasal administration of this T4-COVID vaccine induces higher virus neutralization antibody titers against multiple variants, balanced Th1/Th2 antibody and cytokine responses, stronger CD4+ and CD8+ T cell immunity, and higher secretory IgA titers in sera and bronchoalveolar lavage with no effect on the gut microbiota, compared to vaccination of mice intramuscularly. The vaccine is stable at ambient temperature, induce apparent sterilizing immunity, and provide complete protection against original SARS-CoV-2 strain and its Delta variant with minimal lung histopathology. This mucosal vaccine is an excellent candidate for boosting immunity of immunized and/or as a second-generation vaccine for the unimmunized population. This needle-free platform could be used to develop effective vaccines against many other respiratory infectious pathogens including Flu and any future emerging epidemic and pandemic pathogens.

5.4538381EXTRAZELLULÄRE VESIKEL MIT ANTIGENEM PROTEIN ODER GEN ZUR CODIERUNG DES PROTEINS UND VERWENDUNGEN DAVON

EP - 16.04.2025

Clasificación Internacional C12N 15/88Nº de solicitud 23839985Solicitante UNIV EWHA IND COLLABORATIONInventor/a KWON KI HWAN

The present disclosure relates to an extracellular vesicle including an antigen protein or a gene encoding the antigen protein and use thereof, and more particularly, to: an extracellular vesicle including an antigen protein derived from a virus, a microorganism, or cancer cells, or a gene encoding the antigen protein; or a vaccine composition for the prevention or treatment of a viral infection, a microbial infection, or cancer, the vaccine composition including the extracellular vesicle. The extracellular vesicle or the vaccine composition including the extracellular vesicle, according to the present disclosure, is a platform that has stability and an excellent effect of inducing an antigen-specific immune response and can be applied to various diseases, and thus is expected to be effectively used in the field of development of a vaccine for the prevention or treatment of various diseases, including microbial infections or cancer.

6.WO/2025/082552IL33-LOADED ONCOLYTIC VACCINIA VIRUS AND COMBINATION THERAPY THEREOF WITH IMMUNE CHECKPOINT INHIBITOR

WO - 24.04.2025

Clasificación Internacional C12N 15/24Nº de solicitud PCT/CN2024/139741Solicitante WANG, QiInventor/a WANG, Qi

Provided in the present invention are an IL33-loaded oncolytic vaccinia virus and a combination therapy thereof with an immune checkpoint inhibitor. Specifically, provided in the present invention are an oncolytic vaccinia virus loaded with a human or mouse IL33 gene, a construction method therefor and the use thereof with an immune checkpoint inhibitor. The oncolytic vaccinia virus of the present invention has a significant in vitro inhibitory effect on a variety of tumor cells such as ovarian cancer, bladder cancer and liver cancer cells. The use of the oncolytic vaccinia virus in combination with an immune checkpoint inhibitor has a significant in vivo therapeutic effect on tumors. The present invention provides a new method for virus treatment of tumors, and has clinical application prospects.

7.WO/2025/076792METHODS OF PREPARING NOROVIRUS VACCINE WITH LOW AMOUNTS OF ADJUVANT

WO - 17.04.2025

Clasificación Internacional C07K 14/08Nº de solicitud PCT/CN2023/124372Solicitante CHENGDU KANGHUA BIOLOGICAL PRODUCT CO., LTD.Inventor/a XIE, Di

The present invention provides a method for preparing a Norovirus vaccine composition, a vaccine composition produced using this method, and a method of treating a patient infected by Norovirus. Said method comprises mixing VLPs of different Norovirus genogroups to form a mixture, which is then combined with at least one adjuvant, such that the VLPs are absorbed to the adjuvant.

8.202501210 47CHIMERIC VIRUS EXPRESSING PORCINE PRODUCTIVE AND RESPIRATORY SYNDROME VIRUS-DERIVED PEPTIDE AND VACCINE COMPOSITION COMPRISING SAME

US - 17.04.2025

Clasificación Internacional A61K 39/12Nº de solicitud 18724753Solicitante BioPoA, Inc.Inventor/a Sang Ho CHA

Provided are a chimeric virus expressing a porcine reproductive and respiratory syndrome virus (PRRSV)-derived peptide and a use thereof as a vaccine. The chimeric virus has an excellent immune stimulating effect and is useful as a vaccine that can effectively protect against PRRSV by suppressing viral amplification in target cells.

9.202501250 05VACCINE DESIGN PIPELINE

US - 17.04.2025

Clasificación Internacional G16B 15/30Nº de solicitud 18684610Solicitante INTOMICS A/SInventor/a Claus LUNDEGAARD

Herein are provided computer implemented methods for designing sets of peptides, such as for use in a vaccine. Also provided are computer-readable media, computer program products and sets of propagated signals for designing sets of peptides, such as for use in a vaccine. Further provided are methods of treatment, uses and kits comprising peptides designed according to the computer implemented methods.

10.WO/2025/085916HUMANIZED MONOCLONAL ANTIBODY AND VACCINES AGAINST MEASLES VIRUS

WO - 24.04.2025

Clasificación Internacional A61K 39/165Nº de solicitud PCT/US2024/052261Solicitante THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORKInventor/a POROTTO, Matteo

A chimeric monoclonal antibody (mAb 77.1) neutralizes measles fusion protein and its cryo-EM structure in complex with MeV F in the prefusion conformation. Vaccine compositions using MeV F protein or its ectodomain are mutated to have stabilized pre-fusion conformation. Vaccine compositions may be varied, targeting other paramyxoviruses; they are mutated forms of paramyxovirus F protein with mutations at specific positions on the protein. Thermostable full-length MeV fusion proteins (FFLs) induce protective immunity and neutralizing antibodies *in vivo*. Vaccination with the FFL induces neutralization titer higher than with live vaccine, providing robust humoral response, likely protective also for individuals with impaired cellular immunity. The 8 specific mAbs, alone or combined with mAb 77, neutralize post fusion transition of MeV fusion protein, interrupting the F refolding process and preventing conformational changes required for membrane fusion and viral entry: mAbs G3, F3, E11, 9E1D3, H8, 10H2G3, D9, and Y10F.

11.202501222 43PROTEIN BASED VACCINE AND PRODUCTION METHOD THEREOF FOR SARS COV-2

US - 17.04.2025

Clasificación Internacional C07K 14/005Nº de solicitud 18485300Solicitante Prime Bio, Inc.Inventor/a Bal Ram Singh

The present invention is directed to a composition, mammalian cell and vector, and a method for the production of, and method of treatment with, a recombinant protein vaccine in a mammalian cell line. The methods and compositions are particularly useful for generating the stable expression of a recombinant protein vaccine of interest. The invention is particularly useful for the production of vaccines to aid in protection against viral pathogens for vertebrates, in particular mammalians, especially humans. The mammalian cell for producing a protein of interest comprises: a plasmid encoded with a nucleotide sequence encoding one or more epitopes or subunits of the SARS-CoV-2 that are embedded in the nucleotide sequence encoding a detoxified recombinant tetanus toxin (DrTeNT).

12.4539875MUTANTER IMPFSTOFF AUF CALR-PEPTID-BASIS

EP - 23.04.2025

Clasificación Internacional A61K 39/00Nº de solicitud 23824838Solicitante ICAHN SCHOOL MED MOUNT SINAIInventor/a BHARDWAJ NINA

The presently claimed and described technology provides vaccine compositions comprising at least two mutant-calreticulin (CALR)-peptides, wherein the at least two peptides have overlapping sequences and methods for administration of the vaccine compositions to induce or elicit an antitumor response or improve or enhance antitumor T cell immunity and methods of preventing, treating, reducing, or slowing progression or development of a hematological malignancy in a subject with a calreticulin mutation.

13.WO/2025/077799METHOD OF PREPARING NOROVIRUS VACCINE WITHOUT ADJUVANT

WO - 17.04.2025

Clasificación Internacional C07K 14/08Nº de solicitud PCT/CN2024/124049Solicitante CHENGDU KANGHUA BIOLOGICAL PRODUCTS CO., LTD.Inventor/a XIE, Di

Methods and compositions related to adjuvant-free Norovirus vaccines are provided. In some embodiments, the vaccine is in a frozen form and/or a solid form. In some embodiments, the vaccine further comprises a pharmaceutically acceptable carrier.

14.4541369IMPFSTOFF MIT NATÜRLICHEN KILLERZELLEN, DIE MIT LIGANDEN NATÜRLICHER KILLER-T-ZELLEN UND KREBSANTIGENEN BELADEN SIND

EP - 23.04.2025

Clasificación Internacional A61K 39/00Nº de solicitud 23824111Solicitante CELLID CO LTDInventor/a KANG CHANG-YUIL

The present invention relates to an immunotherapeutic and preventive vaccine comprising natural killer cells loaded with ligands of natural killer T cells and cancer antigens, and more particularly, to an immunotherapeutic or preventive vaccine comprising natural killer cells loaded with alpha-galactosylceramide (α-GC), which is a natural killer T cell ligand and a type of glycolipid. The composition of the present invention can be used as an anticancer immunotherapeutic agent because natural killer cells are easier to obtain than dendritic cells, and immunization with natural killer cells loaded with ligands of natural killer T cells and antigens induces significant levels of cytotoxic T lymphocyte responses as well as therapeutic effects on malignant tumors.

15.4537840LÖSLICHES HCV GLYCOROTEIN E2 ALS IMPFSTOFF GEGEN HEPATITIS C VIRUS

EP - 16.04.2025

Clasificación Internacional A61K 39/12Nº de solicitud 23203538Solicitante TWINCORE ZENTRUM FUER EXPERIMENTELLE UND KLINISCHE INFEKTIONSFORSCHUNG GMBHInventor/a LABUHN MAURICE

The present invention relates to the field of vaccination, in particular, of vaccination against hepatitis C virus (HCV). The present invention provides a composition comprising HCV glycoprotein E2 from strain GT4a. ED43, and optionally, further HCV glycoproteins E2 from other strains and/or an adjuvant. The glycoprotein can be soluble glycoprotein or it can be displayed on the surface of a nanoparticle. Alternatively, it provides a composition comprising a nucleic acid encoding HCV glycoprotein E2 from strain GT4a.ED43, and, optionally, from other strains. The composition is useful as a vaccine, e.g., for prophylactic vaccination against HCV. The invention also provides a method for producing said composition as well as HCV glycoprotein E2 from strain GT2b.2b5 and a nucleic acid encoding the same.

16.WO/2025/078593SOLUBLE HCV GLYCOROTEIN E2 AS A VACCINE AGAINST HEPATITIS C VIRUS

WO - 17.04.2025

Clasificación Internacional A61K 39/12Nº de solicitud PCT/EP2024/078674Solicitante TWINCORE, ZENTRUM FÜR EXPERIMENTELLE UND KLINISCHE INFEKTIONSFORSCHUNG GMBHInventor/a LABUHN, Maurice

The present invention relates to the field of vaccination, in particular, of vaccination against hepatitis C virus (HCV). The present invention provides a composition comprising HCV glycoprotein E2 from strain GT4a.ED43, and optionally, further HCV glycoproteins E2 from other strains and/or an adjuvant. The glycoprotein can be soluble glycoprotein or it can be displayed on the surface of a nanoparticle. Alternatively, it provides a composition comprising a nucleic acid encoding HCV glycoprotein E2 from strain GT4a.ED43, and, optionally, from other strains. The composition is useful as a vaccine, e.g., for prophylactic vaccination against HCV. The invention also provides a method for producing said composition as well as HCV glycoprotein E2 from strain GT2b.2b5 and a nucleic acid encoding the same.

17.20250121053VACCINE COMPOSITIONS AND THEIR USE

US - 17.04.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18723007Solicitante OSIVAXInventor/a Alexandre LE VERT

The invention relates to immunogenic compositions and their use as a vaccine for the prevention of coronavirus disease in a human subject. More specifically, the invention relates to methods of use of an immunogenic composition in the prevention of coronavirus disease in a human subject in need thereof, said immunogenic composition comprising: a fusion protein comprising (i) a SARS-Cov2 nucleocapsid N antigen and, (ii) a carrier protein comprising a self-assembling polypeptide derived from C4bp oligomerization domain and a positively charged tail.

18.WO/2025/077808METHODS OF PREPARING NOROVIRUS VACCINE WITH LOW AMOUNTS OF ADJUVANT

WO - 17.04.2025

Clasificación Internacional C07K 14/08Nº de solicitud PCT/CN2024/124072Solicitante CHENGDU KANGHUA BIOLOGICAL PRODUCTS CO., LTD.Inventor/a XIE, Di

Methods and compositions related to Norovirus virus-like particles are provided. The method comprises mixing different genogroups of Norovirus VLPs to form a Norovirus VLP mixture first before combining the Norovirus VLP mixture with at least one adjuvant to form the Norovirus vaccine composition, in which the Norovirus VLPs are absorbed to the at least one adjuvant.

19.4541370TUBERKULOSEIMPFSTOFFZUSAMMENSETZUNG MIT FUSIONSPROTEIN AN DER IMMUNAKTIVEN STELLE

EP - 23.04.2025

Clasificación Internacional A61K 39/04Nº de solicitud 23824215Solicitante MYCO RAPHA INCInventor/a KIM HWA JUNG

The present invention provides a fusion protein vaccine composition by the identification of immune-active domains (sites or segments) of Rv2299c protein, the removal of unnecessary sites or the selection of only necessary portions, and linkage to different immune-active proteins or sites, to effectively activate an immune response in tuberculosis patients, and thus can significantly contribute to the prevention and treatment of tuberculosis.

20.20250122247COMPOSITIONS AND METHODS RELATED TO HIV-1 IMMUNOGENS

US - 17.04.2025

Clasificación Internacional C07K 14/16Nº de solicitud 18817389Solicitante THE SCRIPPS RESEARCH INSTITUTEInventor/a Leopold Kong

The present invention provides HIV-1 vaccine immunogens. Some of the immunogens contain a soluble gp140-derived protein that harbors a modified N-terminus of the HR1 region in gp41. Some of the immunogens contain an HIV-1 Env-derived trimer protein that is presented on a nanoparticle platform. The invention also provides methods of using the HIV-1 vaccine immunogens for eliciting an immune response or treating HIV infections.

21.WO/2025/079054A METHOD OF DEVELOPING FREE FLOATING CONDITION FOR TRANSFECTION AND INFECTION OF CELLS

WO - 17.04.2025

Clasificación Internacional C12N 5/00Nº de solicitud PCT/IB2024/060196Solicitante OMNIBRX BIOTECHNOLOGIES PRIVATE LIMITEDInventor/a PATEL, Ravindrakumar Dhirubhai

The present invention relates to the method of developing free floating condition for transfection and infection of cells which was employed for the production of vaccine, viral vectors, biotherapeutics, etc by increasing the infection and transfection efficiency. Particularly, a bioreactor system is required to generate vaccine, viral vectors in large scale. The host cells are grown in the bioreactor to attain sufficient cell density, after reaching the sufficient cell density into the bioreactor, cells are dislodged from the surface by some vibration, enzyme or combination of vibration and enzymatic method before infection and transfection. The process of

transfection and infection is faster than cell re-attachment. Therefore, majority of the cells which are re-attached are found to be transfected / infected. The whole event of cell detachment, transfection/infection and cell re-attachment is unique and ultimately leads to the increment of the transfection efficiency significantly.

22.WO/2025/080776VACCINE COMPOSITIONS COMPRISING SIALIC ACID BINDING DOMAIN (SBD) PROTEINS AND USE THEREOF TO ENHANCE IMMUNE RESPONSE

WO - 17.04.2025

Clasificación Internacional A61K 39/09Nº de solicitud PCT/US2024/050680Solicitante THE CHILDREN'S MEDICAL CENTER CORPORATIONInventor/a MALLEY, Richard

Aspects of the invention described herein relate to a vaccine composition comprising at an antigenic polysaccharide and an immunomodulatory amount of a sialic acid binding moiety, wherein the sialic acid binding moiety comprises sialic acid binding domain (SBD) which is not fused to an antigenic polypeptide.

23.WO/2025/081106NANOBODY VACCINE COMPOSITIONS

WO - 17.04.2025

Clasificación Internacional A61K 47/42Nº de solicitud PCT/US2024/051131Solicitante VANDERBILT UNIVERSITYInventor/a WILSON, John T.

Disclosed herein are protein-based compositions and conjugates thereof that can take advantage of beneficial delivery properties to improve vaccine efficacy. An example protein-based composition includes an albumin-binding nanobody and a peptide antigen domain. An example conjugate includes the protein-based composition attached to a drug through a linker. Also disclosed are methods of making and using the protein-based compositions and conjugates thereof.

24.2634841SYSTEMS AND METHODS FOR PREPARING VACCINES UTILIZING PREDICTABLY INACTIVATED PATHOGENS

GB - 23.04.2025

Clasificación Internacional A61L 2/10Nº de solicitud 202500264Solicitante PERUMALA HOLDINGS LLCInventor/a MADHAVAN PISHARODI

A method is described for producing a vaccine from a neutered pathogenic source. The neutered pathogenic source may be a SARS-COV-2 virus that is neutered with a defined dose of UV-C light. The neutered SARS-COV-2 viral vaccine is administered through an inhalation pump. The architecture of the neutered inactivated virus can be kept intact or partially destroyed by using graded dosage of the UVC.

25.WO/2025/080565LOW-SUGAR CORONAVIRUS VACCINE AND METHODS THEREOF

WO - 17.04.2025

Clasificación Internacional A61K 39/215Nº de solicitud PCT/US2024/050353Solicitante ROCK BIOMEDICAL INC.Inventor/a LEE, Jeng-Shin

The present disclosure relates to a low glycosylated spike protein and a vaccine designed to express the spike protein in vivo. The present disclosure also teaches a method for generating an immune response by

utilizing the low glycosylated spike protein, which provides a broader protection across different variants. A method for identifying a glycan-shielded conserved peptide of a glycoprotein is also disclosed.

26.4536294VERFAHREN ZUR VERZÖGERTEN ABGABE VON MRNA-IMPFSTOFFEN

EP - 16.04.2025

Clasificación Internacional A61K 48/00Nº de solicitud 23820292Solicitante MERCK SHARP & DOHME LLCInventor/a BETT ANDREW

The invention relates to a method of treating a disease or disorder in a patient in need thereof that includes providing an active pharmaceutical ingredient (API) to the patient by administering more than one split-dose of the API over a pre-determined period of time. In embodiments of the invention, the API is an mRNA encoding an antigen. The attractiveness of mRNA as a vaccine modality is supported by several advantages. As a non-infectious agent that does not require incorporation into the host's genome to confer activity along with its well-defined chemical composition, mRNA is regarded as a relatively safe vaccine modality.

27.20250122248IMMUNOGENIC FUSION PROTEIN

US - 17.04.2025

Clasificación Internacional C07K 14/315Nº de solicitud 18984610Solicitante MINERVAX APSInventor/a Per Bo PEDERSEN FISCHER

The present invention relates to an immunogenic fusion protein comprising a first amino acid sequence having at least 80% sequence identity with the amino acid sequence of the N-terminal region of a first group B *Streptococcus* surface protein, which is fused to a second amino acid sequence having at least 80% sequence identity with the amino acid sequence of the N-terminal region of a second group B *Streptococcus* surface protein. Each of the first and the second group B *Streptococcus* surface protein is selected from the group consisting of Rib protein, Alp1 protein, Alp2 protein, Alp3 protein, Alp4 protein and AlpC protein. The immunogenic fusion protein further comprises at least one amino acid sequence having at least 80% sequence identity with the amino acid sequence of the N-terminal region of the group B *Streptococcus* surface protein Alp1, Alp2, Alp3 or Alp4. The invention further pertains to an isolated nucleotide sequence encoding the immunogenic fusion protein; a vector; a host cell; an immunogenic product, a vaccine; and a method for preventing or treating a group B *Streptococcus* infection.

28.4536168MEDIZINISCHE ABGABEANORDNUNG

EP - 16.04.2025

Clasificación Internacional A61J 1/20Nº de solicitud 23824485Solicitante KOSKA FAMILY LTDInventor/a GIBNEY ERIC DWYER

A pre-filled medical delivery assembly assembled and configured to allow delivery of a single dose of a therapeutic agent (*e.g.*, vaccine, drug, medicament, etc.) from a Blow-Fill-Seal (BFS) vial to a patient. The delivery assembly generally includes a modular design consisting of separately constructed components cooperatively arranged and coupled to one another. In accordance with some embodiments, the medical delivery assembly comprises a hub connector that includes at least one alignment track on an interior portion thereof, configured to receive a corresponding wing of a BFS vial which it is designed to couple with.

29.WO/2025/081053FORMULATIONS FOR THERMOSTABLE VACCINES

WO - 17.04.2025

Clasificación Internacional A61K 39/12Nº de solicitud PCT/US2024/051061Solicitante FLUGEN, INC.Inventor/a MOSER, Michael J.

The invention provides a stable pharmaceutical formulation comprising (a) a buffer, (b) a sugar, (c) a stabilizer, (d) one or more amino acids, and (e) at least one influenza virus backbone. The invention further provides a method of treating a mammal in need of an influenza vaccine by administering the inventive pharmaceutical formulation. The invention also provides a method of eliciting an immune response by administering the inventive pharmaceutical formulation.

30.4540586TEMPERATURINTEGRITÄTSSENSOR

EP - 23.04.2025

Clasificación Internacional G01K 1/024Nº de solicitud 23757335Solicitante UNIV DEGLI STUDI CAGLIARIInventor/a SFORAZZINI GIUSEPPE

The present invention relates to a temperature integrity sensor or more precisely a temperature continuity sensor of a product which needs to be kept at a temperature below its degradation temperature, such as for instance a refrigerated or frozen edible product; a pharmaceutical product such as a vaccine, or an antibiotic; or a biological-medical product such as a sample of a body fluid or tissue, or an organ. The sensor is based on RFID technology, in particular passive RFID technology.

31.2025202529HERPES ZOSTER MRNA VACCINE, PREPARATION METHOD THEREFOR, AND USE THEREOF

AU - 24.04.2025

Clasificación Internacional Nº de solicitud 2025202529Solicitante Hangzhou Tianlong Pharmaceutical Co., Ltd.Inventor/a CHAI, Xin

32.WO/2025/085889INTERLEUKIN-2-INDUCIBLE T-CELL KINASE INHIBITORS TO PRODUCE ENHANCED IMMUNE RESPONSES

WO - 24.04.2025

Clasificación Internacional A61K 31/427Nº de solicitud PCT/US2024/052200Solicitante CORVUS PHARMACEUTICALS, INC.Inventor/a MILLER, Richard A.

Provided are, *inter alia*, vaccines comprising an interleukin-2-inducible T-cell kinase (ITK) inhibitor and an antigen, methods of producing an enhanced immune response in a subject by administering the vaccine to the subject, and methods of producing an enhanced immune response in a subject by administering to the subject an effective amount of an ITK inhibitor and an effective amount of an antigen. In embodiments, the ITK inhibitor is a compound of formula (I) or a pharmaceutically acceptable salt thereof, wherein the substituents are as defined herein.

33.4536274RSV-IMPFUNG MIT TRIMEREM RSV-F-FUSIONSPROTEIN

EP - 16.04.2025

Clasificación Internacional A61K 39/12Nº de solicitud 23732448Solicitante GLAXOSMITHKLINE BIOLOGICALS SAInventor/a DAVID MARIE-PIERRE PAULE

The present invention relates to vaccination against respiratory syncytial virus (RSV), in particular to the use of a vaccine formulation comprising an RSV F fusion protein (RSV F protein) antigen and an adjuvant in methods of prevention of RSV infection and disease in older adults.

34.4539877ALLERGIEIMPFSTOFFE AUF BASIS VON KONSENSALLERGENEN

EP - 23.04.2025

Clasificación Internacional A61K 39/35Nº de solicitud 23734203Solicitante UNIV DANMARKS TEKNISKEInventor/a RIVERA DE TORRE ESPERANZA

The present invention relates to synthetic and/or recombinant consensus allergens and to their use as allergy vaccines in particular in the treatment of peach-cypress allergy, in the form of an allergy vaccine comprising a consensus allergen and/or a nucleic acid sequence encoding such, wherein the consensus allergen comprises at least (60) amino acids and is derived from a consensus sequence of the amino acid sequences of at least five (5) protein allergens, and wherein said protein allergens share at least 20% amino acid sequence identity.

35.3013993CANCER RNA-VACCINE

ES - 16.04.2025

Clasificación Internacional A61K 39/00Nº de solicitud 18181544Solicitante CureVac SEInventor/a Fotin-Mleczek, Mariola

36.WO/2025/083199NEW RECOMBINANT PPRV USED AS THERAPEUTIC VACCINE

WO - 24.04.2025

Clasificación Internacional A61K 39/12Nº de solicitud PCT/EP2024/079481Solicitante CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LE DEVELOPPEMENT (CIRAD)Inventor/a SERVAN DE ALMEIDA, Renata

the present invention provides a recombinant attenuated peste des petits ruminants virus (PPRV) derived from the Nigeria 75/1 strain, comprising: (i) a sequence capable of being transcribed into a siRNA directed against a first region of the mRNA of the N gene; and (ii)a mutant N gene comprising a mutation conferring resistance to the said siRNA, the mutation being located in the first region of the N gene.

37.WO/2025/084759KRAS IMMUNOGENIC PEPTIDES

WO - 24.04.2025

Clasificación Internacional C07K 14/47Nº de solicitud PCT/KR2024/015633Solicitante ASTON SCIENCE INC.Inventor/a JUNG, Hun

The present invention relates to a KRAS immunogenic peptide and a use thereof. The KRAS immunogenic peptide according to the present invention selectively binds to MHC class II in a preferential mode to selectively enhance the immunogenicity of specific immune cells capable of killing cancer cells and thus can

be advantageously used as an excellent cancer vaccine for the prevention and/or treatment of cancer by minimizing the immune escape mechanism of cancer cells.

38.WO/2025/080539ADOPTIVE MACROPHAGES AS CANCER VACCINES

WO - 17.04.2025

Clasificación Internacional A61K 39/00Nº de solicitud PCT/US2024/050307Solicitante PRESIDENT AND FELLOWS OF HARVARD COLLEGEInventor/a MITRAGOTRI, Samir

The technology described herein is directed to methods and compositions for activating T cells, e.g., for use as a cancer vaccine. Said composition includes at least macrophage, at least one cancer antigen. The composition also may include at least one of LPS, GM-CSF, TNF-alpha, ILlbeta, IFN-alpha, CD40 agonist, poly (I:C), resiquimod, and/or IFN-gamma.

39.4536815STAMMZELLENZUSAMMENSETZUNGEN ZUR KULTIVIERUNG VON CORONAVIREN UND VERFAHREN ZUR HERSTELLUNG UND VERWENDUNG DAVON

EP - 16.04.2025

Clasificación Internacional C12N 7/00Nº de solicitud 23819289Solicitante CENTRE FOR TRANSLATIONAL STEM CELL BIOLOGY LTDInventor/a RUAN DEGONG

Disclosed are methods for culturing coronavirus particles in early syncytiotrophoblasts (eSTBs). The derived eSTBs are mononucleated or bi-nucleated cells with high ACE2 expression and are not multi-nucleated or mature cells. The methods can also include assessing the eSTBs for coronavirus susceptible markers. Also disclosed are compositions and methods (i) for inducing the differentiation of eSTBs and mature STBs from trophoblast stem cells (TSCs), (ii) for inducing the differentiation of TSCs from EPSCs, primed and naïve stem cells, pre-implantation embryos, placental stem cells, and iPSCs, and (ii) for producing TSCs by reprogramming non-trophoblast cells. The disclosed compositions and methods can be used for producing large quantities of coronavirus particles, including human, non-human, and variant coronavirus particles for virus production, the vaccine industry, disease modeling studies, screening and evaluation of antiviral reagents, compound candidates, testing kits, and evaluation of clinical therapies.

40.20250121052SARS-COV-2 VACCINES

US - 17.04.2025

Clasificación Internacional A61K 39/215Nº de solicitud 18658552Solicitante Gritstone bio, Inc.Inventor/a Leonid Gitlin

Disclosed herein are vaccine compositions that include SARS-CoV-2 MHC epitope-encoding cassettes and/or full-length SARS-CoV-2 proteins. Also disclosed are nucleotides, cells, and methods associated with the compositions including their use as vaccines.

41.4537838NEUES CRS-FRAGMENTPEPTID MIT IMMUNPOTENZIERENDER WIRKUNG UND VERWENDUNG DAVON

EP - 16.04.2025

Clasificación Internacional A61K 38/53Nº de solicitud 23820132Solicitante ZYMEDI CO LTDInventor/a CHO SEONGMIN

The present invention relates to a novel CRS fragment peptide with immune-enhancing activity and its uses, more specifically to a novel peptide consisting of the amino acid sequence of SEQ ID NO:2 or an amino acid sequence having 95% or more sequence homology thereto, and its use as a vaccine adjuvant, an anticancer agent, and an antiviral composition. The peptide disclosed in the present invention is a CRS fragment disclosed for the first time in this specification, exhibiting anticancer activity, immune function enhancement, and antiviral activity.

42.4541806MODIFIZIERTES CORONAVIRUS-SPIKE-ANTIGENPROTEIN UND VERWENDUNGEN DAVON

EP - 23.04.2025

Clasificación Internacional C07K 14/005Nº de solicitud 23824257Solicitante UIF UNIV INDUSTRY FOUNDATION YONSEI UNIVInventor/a OH JONG-WON

One aspect relates to a modified coronavirus spike antigen protein and uses thereof. It was confirmed that a spike antigen protein of coronavirus, according to one aspect, exhibited suppression of cell membrane fusion ability and improvement in safety by modifying two protein cleavage sites present in a coronavirus spike protein of the coronavirus. In addition, inoculation with a vaccine using said antigen protein induces the production of a large amount of neutralizing antibodies to inhibit the invasion of the coronavirus into cells, thereby suppressing viral proliferation. Accordingly, the present invention can be used in various industries and markets, such as prevention of coronavirus infection, alleviation and treatment of symptoms, infection diagnosis, etc.

43.4542559AEROSOLVERABREICHUNGSVORRICHTUNG

EP - 23.04.2025

Clasificación Internacional G16H 20/13Nº de solicitud 25161592Solicitante STAMFORD DEVICES LTDInventor/a POWER JOHN

A dispensing apparatus (100) is for use by users to take a chamber (110), fill the chamber with an aerosolized vaccine or other medicament (104), and dispose of used chambers (120). A display (103) provides instructions to encourage prompt inhalation by the user from a dispensed and filled chamber. The apparatus allows very fast administration of vaccines to large numbers of people. The aerosol dispenser apparatus detects the chamber is in correct position and delivers a predetermined dose of aerosol. Once the dose is delivered a visual and/or audible indicator informs the user that the chamber is filled and that they can take the inhalation. The single dose aerosol chamber (110) is optimized for efficient administration of an aerosol.

44.4536681VIRALE PEPTIDE UND VERWENDUNGEN DAVON

EP - 16.04.2025

Clasificación Internacional C07K 7/00Nº de solicitud 23744609Solicitante REGENERON PHARMAInventor/a CHOY AUGUSTINE

The present disclosure provides isolated peptides derived from hepatitis B virus (HBV), peptide-based molecules (e.g., peptide-MHC (pMHC) complexes), polynucleotides and vectors encoding the peptides or

peptide-based molecules, pharmaceutical compositions (e.g., vaccine compositions), and their use for treatment or prevention of HBV infection and/or HBV-induced diseases. The present disclosure also provides binding moieties that bind to the peptides or peptide-based molecules disclosed herein, and their use for treatment or prevention of HBV infection and/or HBV-induced diseases. The present disclosure further provides methods and systems for identifying immunogenic virus-derived peptides.

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