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

IFV INSTITUTO FINLAY DE VACUNAS

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Análisis bibliométrico sobre vacunas vivas atenuadas

Estrategia de búsqueda:

TITLE: ("live attenuated vaccines") 2076 records

Periodo de estudio 1997-2020

Fuente de información utilizada:

Las variables utilizadas en el análisis fueron:

⇒ Productividad científica por año.

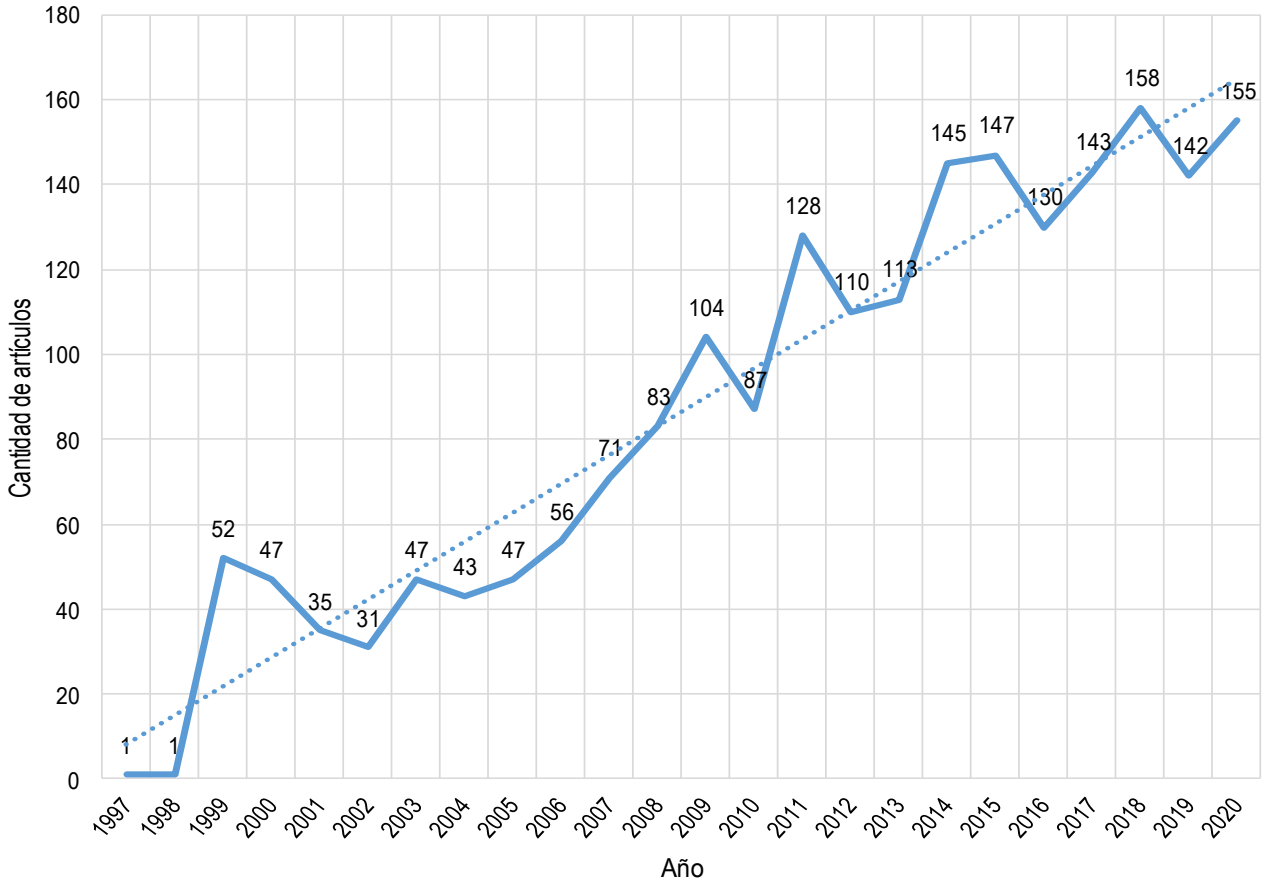
⇒ Autores con mayor productividad científica.

⇒ Revistas con mayor número de publicaciones sobre el tema.

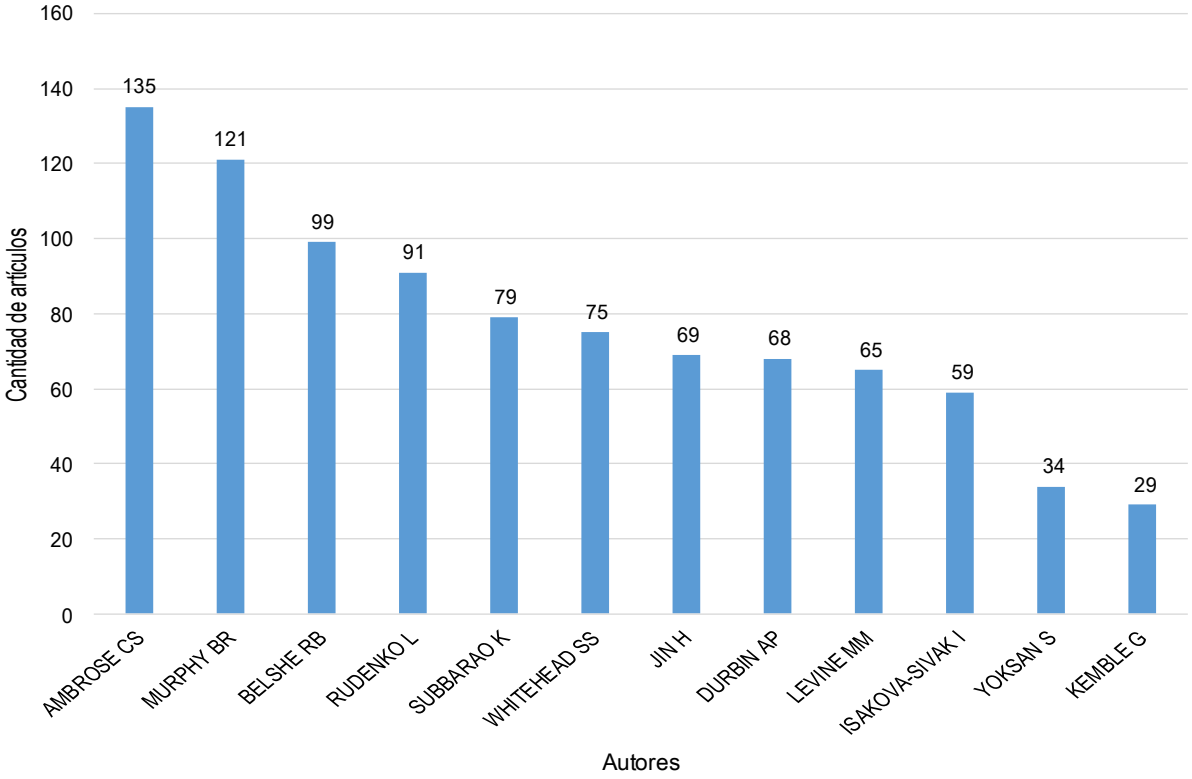
⇒ Instituciones que han trabajado el tema de estudio.

⇒ Países a la vanguardia sobre el tema.

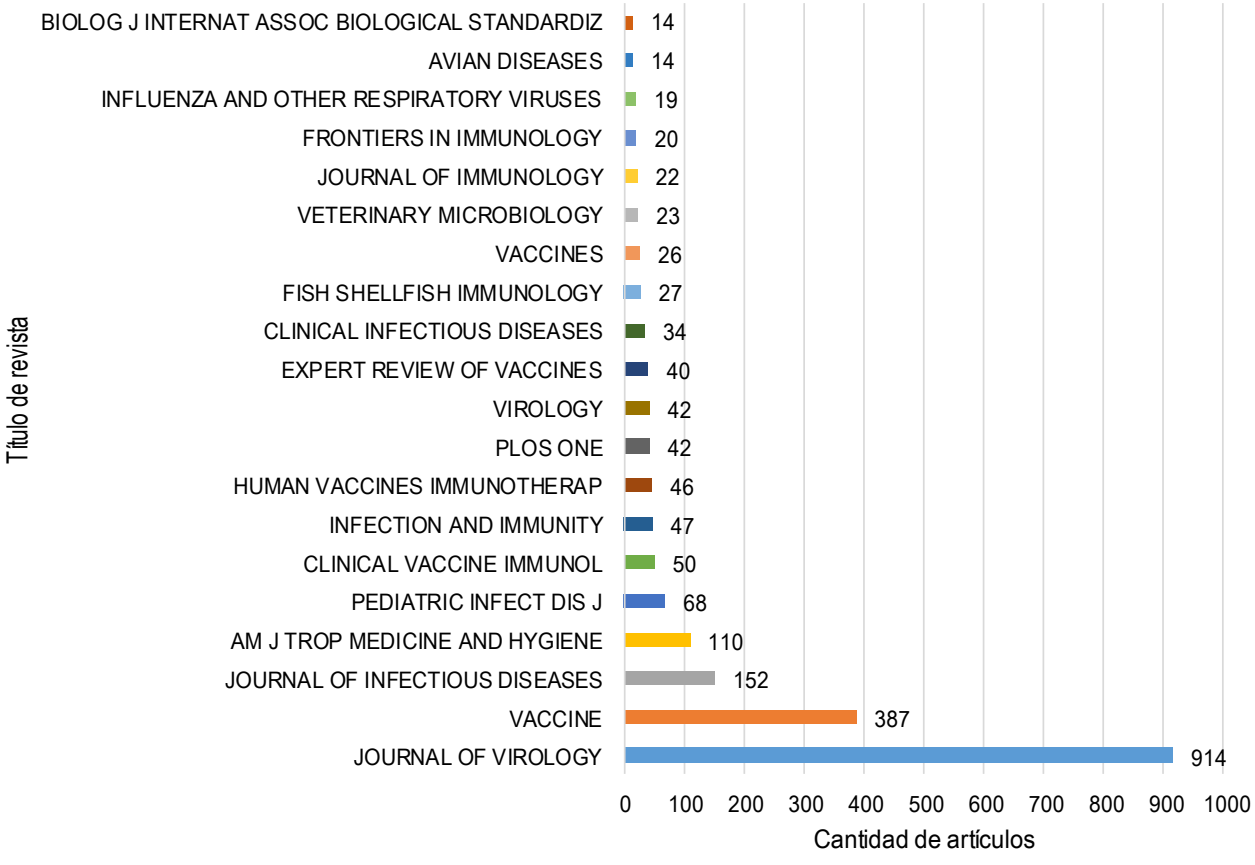
Productividad científica por año



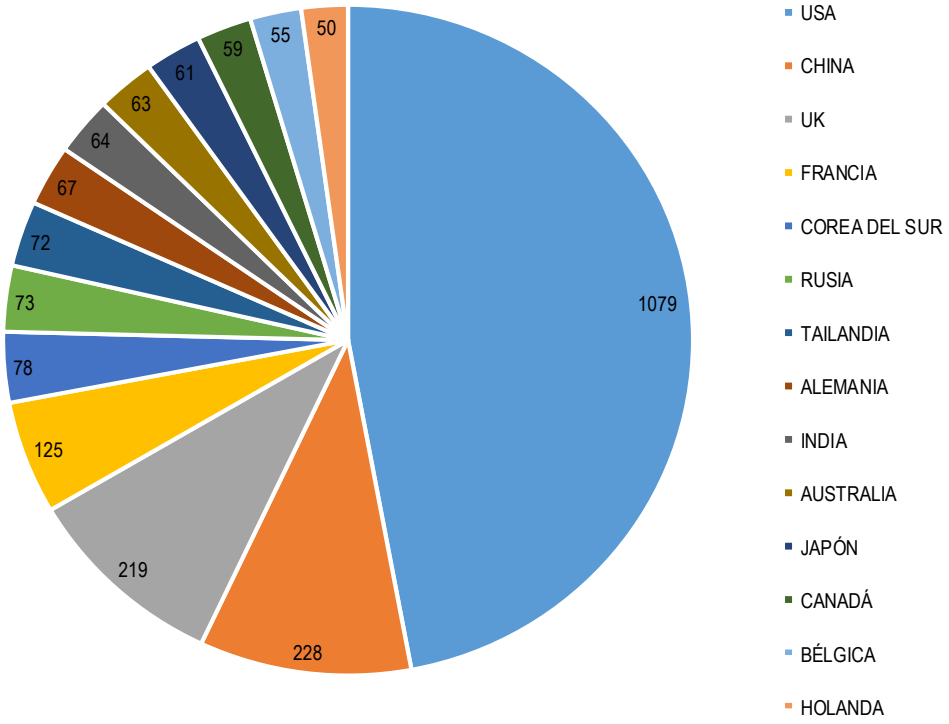
Autores con mayor productividad científica



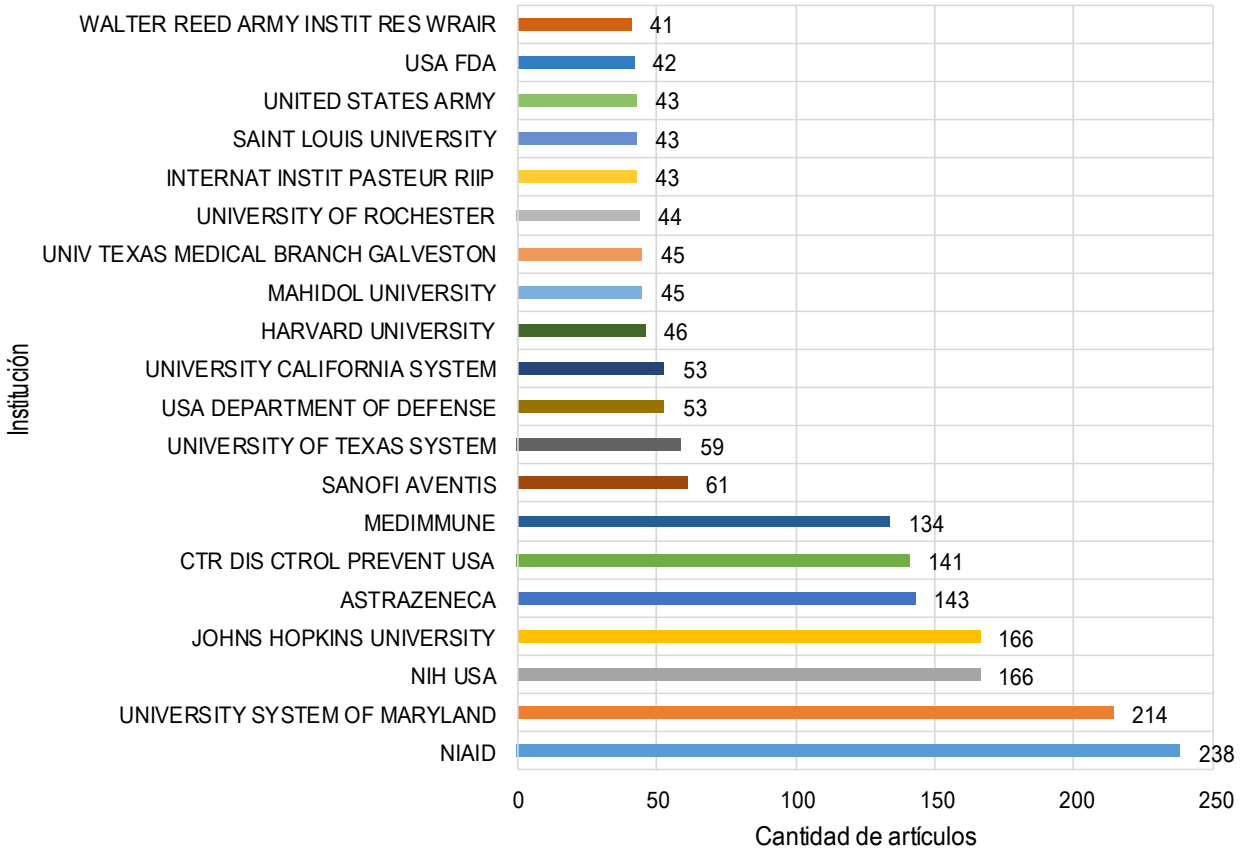
Revistas científicas que más han publicado sobre el tema



Países de mayor producción científica en el tema



Instituciones que han trabajado el tema de estudio



Noticias en la Web

Can the pneumonia vaccine protect against COVID-19?

1 oct. The COVID-19 pandemic poses a number of challenging puzzles. Infants and children contract COVID-19 at lower rates that adults and almost never die of its complications. Nations that have similar populations have vastly different rates of COVID-19 infections and deaths. Even within cities, some neighborhoods have very high rates of COVID-19, others very low. Why? Might the answer to these questions have a common solution and might that solution provide insights into how to control COVID-19 until vaccines are available to control the coronavirus that causes it?

In a recent paper in *BioEssays,* I hypothesized that there may, indeed, be a common answer and that is vaccination. Infants start receiving vaccines at two months of age and children receive as many as two dozen vaccinations by the time they finish their teen years. Adults, on the other hand, get vaccinated much less frequently and sometimes not at all. Vaccines don't "take" as well in people with the highest risks for COVID-19, such as diabetes, heart disease, immune suppression and old age. Moreover, rates of vaccination can vary dramatically by nationality, race and socio-economic status.

I compared the rates of COVID-19 cases and deaths in two dozen nations as a function of their rates of vaccination against pneumococci, Hib (*Haemophilus influenzae*, type B), influenza, poliovirus, measles-mumps-rubella (MMR), diphtheria-tetanus-pertussis (DTP), and tuberculosis (BCG). The two dozen countries were chosen according to three criteria: access to complete, recent vaccination rates; reliability of data available on COVID-19 case and death rates; and comparability of these data sets in terms of when COVID-19 emerged in each nation. Most nations did not meet all three criteria and could not, therefore, be compared.

My *BioEssays* study revealed that the greater the percentage of people who were vaccinated with either the Prevnar-13 pneumococcal vaccine as children or with the Pneumovax 23 as adults over the age of 65, the fewer cases of COVID-19 per million people were reported in that country. A combination of childhood plus adult pneumococcal vaccination rates was an even better predictor. These results were controlled for COVID-19 risk factors such as the percent of the population over the age of 65 or having diabetes or obesity.

A Mayo Clinic study of thousands of their patients (not yet peer reviewed) confirms the protection against COVID-19 that I've found for pneumococcal vaccination.

> **"Where pneumococcal vaccination rates are high, COVID-19 cases are low and vice-versa."**

However, where my study found that no other vaccine showed any protective effect against case or death rates from COVID-19, the Mayo Clinic study found possible benefits from Hib, measles-mumps-rubella vaccine, and influenza vaccination. Taken together, these studies suggest that keeping up one's vaccinations is one way to lower COVID-19 risks.

There are two possible reasons that pneumococcal vaccines in particular may protect against COVID-19. One is that the vast majority of symptomatic COVID-19 cases have bacterial co-infections so that vaccination against pneumococci and Hib prevent these super-infections and the pneumonias they cause. Alternatively, pneumococcal vaccines may protect against COVID-19 is by indirectly vaccinating against SARS-CoV-2 itself.

In a second paper, published in Vaccines, I report that pneumococcal vaccines contain bacterial cell wall proteins that mimic SARS-CoV-2 proteins. Antibodies produced against these pneumococcal proteins might, therefore, also protect against the coronavirus. I emphasize that this mechanism for explaining pneumococcal vaccination protection against COVID-19 is, at present, an untested hypothesis.

Perhaps the most important implication of my two studies is that they suggest a way to mitigate the effects of the upcoming dual influenza-COVID-19 surges that we will see this Fall and Winter. Dozens of well-controlled, very large-scale studies have been carried out around the world demonstrating that improving rates of pneumococcal and Hib vaccinations significantly decreases hospitalizations, intensive-care unit admissions, and deaths related to influenza in a manner that is highly cost effective. There is every reason to believe that these vaccinations will also decrease COVID-19 complications and be similarly cost effective. Thus, we may have the means to control COVID-19 long enough to role out effective SARS-CoV-2 vaccines and do so in a way that benefits public health more generally.

Fuente: **ADVANCED** SCIENCE NEWS. Disponible en https://cutt.ly/Lga3dvr

Avanza en Cuba proceso de desarrollo de candidatos vacunales contra la COVID-19

1 oct. En un encuentro sostenido entre Eduardo Martínez Díaz, presidente de BioCubaFarma, e instituciones científicas implicadas en el desarrollo de candidatos vacunales cubanos contra la COVID-19, trascendió que continua el avance de dicho proceso, informó CubaSí.

El reporte —basado en una publicación del grupo empresarial de la biotecnología cubana en su cuenta en Twitter— explica que "en la mañana de hoy el Presidente de BioCubaFarma chequeó con directivos e investigadores del Instituto Finlay, CIM y el CIGB Cuba la marcha de los proyectos de vacunas contra la COVID-19".

Soberana01 es primer candidato vacunal cubano que se encuentra en fase de ensayos clínicos en humanos, evaluación que se desarrolla de manera aleatoria y controlada, y se prevé concluya, en todas sus etapas, en enero del próximo año.

De acuerdo con la Doctora Sonia Pérez Rodríguez, investigadora principal del ensayo clínico del candidato vacunal Soberana 01, este "es una investigación que se hace en voluntarios y que tiene en esta ocasión dos fases".

En esta primera etapa —explicó a Naturaleza Secreta— tenemos dos grupos de voluntarios: uno de entre 19 y 59 años y otro de entre 60 y 80 años. A la vez, cada grupo se dividió de manera aleatoria en tres subgrupos para las diferentes dosis

del producto en investigación o para el producto control (la vacuna VA-MENGOC-BC).

Asimismo, añadió que el candidato vacunal Soberana 01 se aplica en dos dosis. Después del primer día, que han denominado tiempo cero, se esperan 28 días para inocular la segunda.

En total son 59 días de investigación continua, pues otros 28 días siguen a la aplicación de la segunda dosis.Durante todo el periodo, a los voluntarios se les hacen cuatro extracciones de sangre: la primera en el tiempo cero y la cuarta el día 56 después de la segunda dosis (análisis de sangre de laboratorio clínico y de inmunología).

Las dos intermedias son para medir los títulos de anticuerpos.Pérez Rodríguez detalla, además, que "el propósito de la investigación es determinar si la vacuna es segura para poderla extender a un grupo mayor de participantes voluntarios, y luego a la población".

"Significa que todo lo que suceda con los voluntarios nosotros lo registramos. Si la vacuna demuestra que es segura, avanzamos en la investigación", dijo.

Añadió que, «al evaluar dos dosis del producto, en la medida que se avance en la investigación, se demostrará cuál es la dosis más efectiva y más segura, y con esa será con las que nos quedaremos para etapas posteriores de los ensayos clínicos".

El producto inyectable —subraya el reporte de CubaSí—, desarrollado por el Instituto Finlay de Vacunas, toma como base el principio de la vacuna cubana contra la meningitis meningocócica, con casi 30 años de eficacia, y se combina con el antígeno RBD, que facilita la entrada del patógeno en las células del cuerpo humano.

Soberana 01 es también el primer candidato vacunal de América Latina y el Caribe que recibe una autorización para ensayos clínicos y el número 30 en el mundo.

Fuente: cubaperiodistas. Disponible en https://cutt.ly/Uga8yfX

AstraZeneca reanuda el ensayo de su vacuna de COVID-19 en Japón

2 oct. La farmacéutica británica AstraZeneca dijo el viernes que los ensayos clínicos de su vacuna experimental de COVID-19 se reanudaron en Japón, al tiempo que añadió que sigue en conversaciones con los reguladores sobre los datos necesarios para reiniciar los ensayos en Estados Unidos, donde permanecen detenidos.

Varios ensayos globales de la vacuna, denominada AZD1222, se suspendieron el mes pasado después de una enfermedad de origen desconocido en una participante del estudio. Aunque la mayoría de los ensayos se han reanudado, las pruebas en Estados Unidos siguen suspendidas y los organismos reguladores han ampliado su investigación, según informó Reuters el miércoles.

El fabricante de medicamentos británico dijo que el ensayo de fase inicial-media para la vacuna candidata contra el nuevo coronavirus se reanudó en Japón tras consultar al regulador

nacional de salud, el Organismo Japonés de Productos Farmacéuticos y Aparatos Médicos.

Los ensayos en Reino Unido, Brasil, Sudáfrica y la India ya se han reanudado.

Fuente: REUTERS. Disponible en https://cutt.ly/8ga7F8C

The UK in Cuba: creating alliances in response to COVID-19

2 oct. The British Embassy in Havana is supporting projects that will deliver relevant and measurable outcomes responding to Cuba's efforts to cope with the pandemic.

Small-scale project interventions with funds from the International Programme (IP) of the Foreign, Commonwealth and Development Office (FCDO) in Cuba, will contribute to increase the country's sanitary resilience, support research into vaccines and therapeutics, and mitigate the domestic economic impact of the COVID-19 pandemic.

British Ambassador to Cuba, Dr Antony Stokes LVO said: "Cooperation between countries is essential in responding to the challenges posed by COVID-19. In addition to putting the world's health systems under pressure, the pandemic has impacted our economies. The projects drive bilateral collaboration in these two key areas."

The Embassy is assisting the Cuban Centre for Neurosciences (CNEURO) in its effort to optimize the diagnosis and treatment approaches that minimize brain damage in patients. The institution also works on improving the treatment of COVID-19-related respiratory deficits and will implement a protocol for the assimilation and use of non-invasive Continuous Positive Airway Pressure (CPAP) devices, based on a design by University College London.

Dr Mitchel Valdés-Sosa, Director of CNEURO said: "Non-invasive ventilation implies a significant improvement in the recovery of patients. Both projects are innovative within the portfolio of projects aimed at combating COVID-19 in Cuba, and an important resource to improve the prevention, diagnosis and treatment of current and future diseases."

The British Embassy is also collaborating with the Cuban Centre for Genetic Engineering and Biotechnology (CIGB) in several areas of research, related to: the clinical trial of an immune enhancer, the development of diagnostic tests for serological antigen detection and the effect of an existing antiviral in COVID-19 positive patients.

Dr Eulogio Pimentel, Director of CIGB, said: "In facing the pandemic in Cuba, the possibility of developing specific and effective drugs against this disease has been essential. In this sense, we appreciate the contribution of the United Kingdom, to be able to acquire multiple reagents and materials necessary to ensure the progress of the three mentioned actions."

On mitigating the economic impact of COVID-19 in Cuba, the Embassy is supporting research that will bring about concrete proposals to transform the fresh food commerce in Cuba. Equally, it will support the Cuban private sector in its discussions on how to strengthen the sector despite the devastating consequences that the outbreak has had for them.

Four years of collaboration

Since 2016, the FCDO's International Programme has provided financial support for events, research, workshops, visits and other interventions that support development projects and exchange between the UK and Cuba.

The Embassy works with the Cuban government, academia, international organisations and civil society to support the country's development in areas such as: economic reform, global health threats, biotech and life sciences, public governance, financial and professional services, higher education and English Language teaching, renewable energy, creative industries, and the media, among others.

Examples of this past work are:

Training workshop on accessing climate finance for mitigation in energy and transport.

Workshops on potential value and impact of a stronger Creative Industries sector in the Cuban economy.

Training to the Cuban banking sector by several institutions from the City of London on issues such as: digital banking and Fintech, strengthening governance and strategic leadership in banks, building a future-proof financial technology programme, retail banking & SME lending, among others.

Assisting Cuba in the development of a National Public Procurement Strategy

- Assessing the role and value of energy storage in Cuba.
- Technical assistance by Public Health England (PHE) for training and implementation of immunological assays for improving vaccine evaluation at the Cuban Finlay Vaccine Institute.
- Supporting the reshaping of the policy for English Language teaching at Cuban universities.
- Workshops and visits on entrepreneurship and its role within the Cuban economy.

For the Financial Year 2020-21, the British Embassy in Havana has been forced to suspend the call for projects bids to be supported by the International Programme. Due to the outbreak of COVID-19 the British government is focused on its response to the global pandemic.

Fuente: reliefweb. Disponible en https://cutt.ly/6gsyBAT

Optimismo entre los expertos que desarrollan la vacuna de Oxford contra el COVID-19: creen que será aprobada a fin de año

3 oct. Los ensayos clínicos están en la fase 3, la última etapa antes de pedir el visto bueno de las autoridades. Si todo continúa por este camino, advierten, podrían vacunar a los adultos del Reino Unido para abril de 2021.

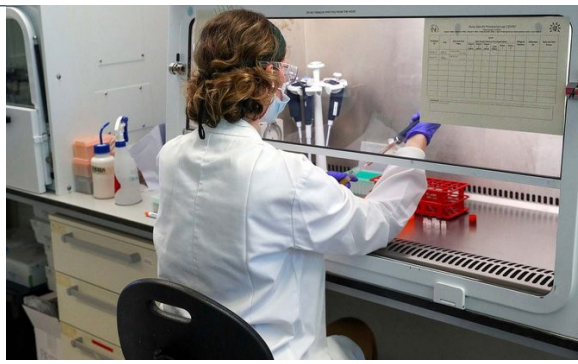
Los expertos que trabajan en la vacuna contra la COVID-19 de la Universidad de Oxford y AstraZeneca son optimistas de que puede recibir la aprobación de los reguladores a finales de año, lo que permitiría vacunar a los adultos del Reino Unido para abril de 2021, según informa este sábado el diario británico The Times. Esta posible vacuna está en la fase 3 de las pruebas clínicas, la última antes de recibir el visto bueno de los organismos reguladores a fin de proceder a inocular a la población.

A finales de agosto, la Unión Europea (UE) cerró con la farmacéutica AstraZeneca un primer contrato que le garantiza el acceso a 300 millones de dosis, un acuerdo que se rubricó en nombre de los Estados miembros y las dosis se distribuirán de forma proporcional en función de la población de cada país.

El periódico The Times informa de que el programa completo para vacunar a toda la población del Reino Unido, que excluiría a los niños, llevaría menos de seis meses una vez recibida la aprobación de una vacuna, ya sea la de Oxford u otra.

Las autoridades prepararán a profesionales sanitarios como comadronas y fisioterapeutas sobre cómo administrar la vacuna, mientras que se planea la instalación de centros especiales para hacer frente a los desafíos logísticos de inocular a millones de personas en un periodo corto de tiempo, añade el rotativo.

Se estima que para suministrar dos dosis de la vacuna a cada uno de los 53 millones de adultos del Reino Unido se necesitarán administrar 600.000 dosis diarias en un periodo de seis meses, pero para hacer lo mismo en tres meses, se requerirá suministrar 1,2 millones por día.



Los ancianos que viven en residencias y el personal que les atiende serán los primeros en ser vacunados, seguidos del personal sanitario británico y los mayores de 80 años. Después será el turno de los mayores de 65 años y los adultos jóvenes con mayor riesgo en caso de contraer COVID-19, seguidos de los mayores de 50 años, mientras que los jóvenes serán los últimos en ser inmunizados, agrega el periódico.

El pasado septiembre, la Universidad de Oxford reanudó las pruebas clínicas tras ser interrumpidas por un breve periodo de tiempo por la reacción adversa sufrida por un voluntario.

Fuente: infobae. Disponible en https://cutt.ly/dgssNXw

Destaca La Jornada de México avances de vacunas cubanas anti-Covid19

4 oct. El diario La Jornada destaca hoy en su sección internacional los avances de los candidatos vacunales cubanos Soberana 1 y 2 contra la Covid-19, las cuales se encuentran en fase de ensayos clínicos.

El periódico cita al director general del Instituto Finlay de Vacunas (IFV), Vicente Vérez Bencomo, quien aseguró que se avanza en la prueba clínica de las dos primeras formulaciones de la vacuna, las cuales han demostrado una gran seguridad.

Según el investigador, añade, las labores no se detienen y constantemente aparecen evidencias científicas que son evaluadas con minuciosidad.

El científico dijo que los recientes resultados internacionales de diferentes ensayos clínicos arrojaron una diferencia muy grande entre la respuesta en animales y en humanos, lo que condujo a los científicos cubanos a diseñar varias formulaciones de la vacuna para poder evaluar su respuesta inmune y decidir cuál será la óptima.

Además comentó que los avances obtenidos en animales con Soberana 2 permitirán iniciar los ensayos clínicos en octubre bajo el permiso de la Autoridad Reguladora de Medicamentos, Equipos y Dispositivos Médicos, relata La Jornada.

El científico señaló que los investigadores aspiran a avanzar en los estudios referentes a la respuesta

inmune antes de que termine el presente año y mantienen el propósito de empezar a vacunar a la población cubana durante el primer semestre de 2021.

La fórmula cubana está basada en una proteína recombinante, lo que la hace diferente de otros proyectos que se desarrollan en el mundo a partir de vectores adenovirales o virus inactivos.

Fuente: Prensa Latina. Disponible en https://cutt.ly/pgsfSIS

Influenza vaccination may provide roadmap to prevent Covid-19 in cardiovascular disease patients

5 oct. Seasonal influenza vaccine development and mass production, as well as three international influenza vaccine cardiovascular outcomes trials currently underway, may inform future efforts targeted at developing and evaluating vaccine strategies for COVID-19, according to a state-of-the-art review in the Journal of the American College of Cardiology. Authors of the paper also evaluated whether existing flu trial networks could offer primary and secondary prevention strategies for patients with cardiovascular disease at risk of complications from COVID-19.

The World Health Organization estimates that influenza kills as many as 650,000 people every year globally, citing influenza as a top 10 leading cause of death among people of all ages, especially those with one or more comorbidities like cardiovascular disease. Furthermore, seasonal influenza epidemics have been associated with population-level increases in cardiovascular hospitalization and mortality.

For these reasons, clinical guidelines recommend the general population receive their flu vaccination annually to reduce the risk of influenza-like illness, with high-risk individuals the most urged to get vaccinated.

In December 2019 in Wuhan, China, SARS-CoV-2, a novel coronavirus, emerged generating the widespread outbreak of coronavirus disease 2019 (Covid-19). By March 11, 2020, Covid-19 was declared a pandemic by the WHO, with an overall case fatality ratio of around 2.3%. Patients with Covid-19 who have or at risk of cardiovascular disease have an increased case fatality ratio, including 6% for hypertension, 7.3% for diabetes and 10.5% for cardiovascular disease.

Research has shown that viral respiratory infections such as seasonal influenza and Covid-19 are risk factors for cardiovascular disease. Patients with cardiovascular disease are also at a higher risk of complications following viral respiratory infections, including increased morbidity, mortality and health care utilization. Current data suggests influenza infection and the novel coronavirus share similar symptoms at the outset, primarily fever, cough and shortness of breath. However, Covid-19 appears to be more contagious than the flu.

"Although Covid-19 and other respiratory virus infections are associated with acute myocardial infarction and other cardiovascular events, influenza has the best evidence of a safe vaccine option for cardiovascular risk reduction to date," said Jacob A. Udell, MD, MPH, cardiologist at Women's College Hospital and Toronto General Hospital's Peter Munk Cardiac Centre, University of Toronto, and corresponding author of the paper. "Several observational and small, randomized studies have suggested that influenza vaccination may serve as a preventative measure against adverse cardiovascular outcomes. However, despite international guidelines recommending routine influenza and pneumococcal vaccination for patients with cardiovascular disease, uptake is substantially lacking and often deprioritized, including at the time of a cardiovascular hospitalization."

There are currently three international cardiovascular outcomes trials examining the cardioprotective effects of different influenza vaccine formulations. The Influenza Vaccine to Prevent Adverse Vascular Events trial is a placebo-controlled, randomized clinical trial studying adverse cardiovascular events using the New York Heart Association Functional Class II-IV HF in patients from Asia, the Middle East and Africa. The Influenza Vaccination After Myocardial Infarction trial is also a placebo-controlled, randomized clinical trial testing patients with an ST-elevation myocardial infarction (STEMI), or non-STEMI, or stable coronary artery disease (age ≥75 years) undergoing coronary angiography, with data being collected from Sweden, Denmark, Norway, Czech Republic, Scotland, Latvia, Australia and Bangladesh. A third clinical trial, funded by the NIH, is being conducted in the US and Canada, the INfluenza Vaccine to Effectively Stop cardio-Thoracic Events and Decompensated heart failure trial, which is the first study of its kind comparing two different types of influenza vaccines over several flu seasons, in high-risk cardiovascular patients with a recent history of myocardial infarction or hospitalization for heart failure.

"Three large ongoing influenza vaccine cardiovascular outcome trials have an opportunity to contribute further to our understanding of the underlying comorbidities in these patients that may be drivingmorbidity and mortality associated with COVID-19 infection,"

Fuente: CUBAHORA. Disponible en https://cutt.ly/Mf6kv8l

Udell said. "These cohorts may also be an opportunity to explore novel infection prevention therapies beyond influenza vaccination inpatients that have already volunteered to participate in a respiratory virus vaccine cardiovascular outcome study. While developing new vaccines, we will also definitively learn soon whether influenza vaccination is an effective, low-cost, widely available therapy that reduces cardiovascular risk, which may further help prevent fatal and non-fatal cardiovascular complications of Covid-19."

Fuente: Medical Xpress. Disponible en https://cutt.ly/XgshRP1

El grupo «secreto» que vigila y supervisa las pruebas clínicas de las vacunas para el covid-19

5 oct. Quizás nunca has oído hablar de este grupo, pero tiene una influencia crucial en qué vacunas contra el coronavirus terminarán en el mercado. Se la conoce como la DSMB, siglas en inglés de la Junta de Monitoreo de Datos y Seguridad.

Sus miembros son los únicos que conocen todos los entresijos de las pruebas clínicas que se llevan a cabo. Saben quiénes han recibido la vacuna contra el covid-19 y a quiénes se les administró placebo. Algo que ni siquiera saben los propios médicos que realizan los ensayos, las compañías farmacéuticas que desarrollaron las vacunas o incluso la Administración de Drogas y Alimentos de Estados Unidos.

Sabiendo ese secreto, solo la DSMB puede monitorear lo segura y efectiva que va a ser una vacuna.

Basta con una palabra de la DSMB para que se detenga una prueba. Es lo que sucedió con el ensayo de AstraZeneca a principios de septiembre, después de que un participante en el estudio desarrollara síntomas de problemas neurológicos. Poco después, salió a la luz que esa misma prueba se había detenido brevemente en julio por razones similares. Si bien el ensayo de la vacuna se reanudó en el Reino Unido, todavía sigue detenido en Estados Unidos.

«Son muy poderosos. Son los guardianes de la ciencia y la seguridad y son tan importantes o más que la FDA», dijo el especialista en bioética Art Caplan.

La necesidad del anonimato de la DSMB

A principios de este año, los Institutos Nacionales de Salud (NIH por sus siglas en inglés) designaron una DSMB común para hacer el seguimiento de los ensayos clínicos de la vacuna contra el covid-19 que reciben fondos del gobierno federal bajo la Operación Warp Speed. Esta DSMB tiene entre 10 y 15 miembros con especialidades que incluyen desarrollo de vacunas, estadísticas y ética.

No es una labor glamorosa, ni algo que se vea de cara al público. Los NIH les pagan un modesto honorario, unos 200 dólares por reunión, y no hay conferencias de prensa, entrevistas en televisión, ni fama ni gloria.

Eso se debe a que los nombres de los miembros no suelen darse a conocer durante los ensayos clínicos para protegerlos de presiones externas.

Caplan, que ha trabajado en unas 20 DSMB, afirma que hay una razón de peso para mantener en secreto los nombres de sus miembros.

«No quieres que un inversionista llame a un miembro de la DSMB y le diga 'Oye, ¿cómo se ve este ensayo clínico? Si me lo dices, te daré el 10% de lo que gane», explicó Caplan.

Carrie Wolinetz, directora asociada de política científica de los Institutos Nacionales de Salud, dijo que hay varios tipos de personas que podrían intentar influir en los miembros de la DSMB.

«No tiene que ser algo nefasto. Los padres de un niño muy enfermo podrían estar ansiosos por saber cómo va el ensayo de un medicamento que podría ayudar a su hijo, y podrían comunicarse con la gente de la DSMB. Mantener sus nombres en el anonimato es una forma de garantizar la independencia del grupo», dijo.

Hay mucho en juego. Se encargan de examinar los datos minuciosamente. Una palabra suya podría reducir las posibilidades de que una vacuna llegue al mercado. Millones de dólares gastados en investigación y desarrollo podrían caer en saco roto.

Si bien hay buenos argumentos para mantener el secreto, Caplan no está de acuerdo con la confidencialidad que envuelve actualmente a las DSMB para las vacunas contra el covid-19.

«Necesitamos saber si podemos confiar en la vacuna, así que cuanta más transparencia, mejor», aseguró Caplan.

Para lograr la inmunidad de la población a través de una vacuna, tiene que vacunarse una alta proporción de la población de EE.UU. Pero la confianza en una posible vacuna es baja: el 49% de los estadounidenses dice que definitivamente o probablemente no se vacunarían si hubiera una vacuna en este momento, según una encuesta reciente del Pew Research Center.

«Queremos asegurarnos de que que sean completamente independientes, que no tienen relaciones previas con la empresa. Para que no exista ningún tipo de conflicto», dijo el doctor Eric Topol, profesor de medicina molecular en Scripps Research. «Queremos saber su experiencia. Es importante saber quiénes son».

Cómo funcionan las DSMB

El trabajo de una DSMB es monitorear los datos que surgen de los ensayos clínicos.

En estas pruebas puede haber miles o decenas de miles de participantes. Algunos son asignados al azar para recibir una intervención, en este caso, la vacuna, y otros reciben un placebo.

Los estudios son los que se conocen como «doble ciego». Los participantes no saben qué están recibiendo, ni tampoco los médicos que realizan los ensayos.

Si un voluntario presenta lo que parece ser un efecto secundario o «evento adverso», la DSMB puede investigar y ver si recibió la vacuna o el placebo.

«Si fue un placebo, entonces es una de estas cosas al azar», explicó Susan Ellenberg, miembro de las DSMB relacionadas con covid-19, al corresponsal médico jefe de CNN, el doctor Sanjay Gupta. «Si fuera la vacuna, igualmente podría tratarse de algo aleatorio. Pero entonces tienen que preocuparse y revisar si es la vacuna la que puede haber sido la causa».

Si estos efectos secundarios son suficientemente preocupantes, la DSMB puede recomendar que se detenga el ensayo por motivos de seguridad. Hay mucho en juego en las pruebas clínicas de la vacuna contra el covid-19, que en última instancia podría administrarse a millones de personas sanas, a diferencia de los ensayos con medicamentos destinados a quienes ya están enfermos y no les quedan muchas otras opciones.

«Incluso un evento adverso que ocurra con una frecuencia tan escasa como una de cada 10.000 personas o una de cada 20.000 personas sería una gran cantidad de personas que tendrían un evento adverso grave», dijo Ellenberg,

Fuente: DW. Disponible en https://cutt.ly/Af6lkY8

profesora de bioestadística en la Facultad de Medicina Perelman de la Universidad de Pensilvania.

Con intervalos predeterminados, la DSMB también verifica la eficacia del medicamento. Si las personas que reciben la vacuna se enferman con la misma frecuencia que las que reciben el placebo, no es buena señal. La junta puede recomendar que la prueba se detenga por «inutilidad».

También pueden observar la calidad de los datos, explicó Ellenberg. Si faltan datos, si hay participantes que abandonan o si la prueba se lleva a cabo de manera deficiente, es la DSMB la que puede influir.

«La mayoría de las veces, un comité de monitoreo de datos dirá: 'Todo se ve bien, continúen», dijo Ellenberg. «Pero a veces, nunca se sabe cuándo … hay que tomar una decisión difícil. Y ese es el valor de estos comités».

Por el contrario, si parece que la vacuna está funcionando excepcionalmente bien, la DSMB puede recomendar que el patrocinador del estudio envíe una solicitud a la FDA antes de que finalice oficialmente el ensayo, para que se comercialice más rápidamente.

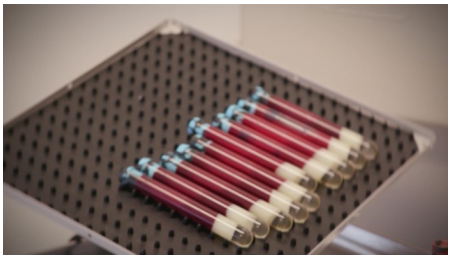
«Escrutinio minucioso»

«Las personas que trabajan en estos comités son sometidas a un minucioso escrutinio por conflictos de interés», según Ellenberg.

Los miembros son evaluados para asegurarse de que no tengan un interés financiero en la compañía farmacéutica que patrocina el ensayo de la vacuna.

«Los miembros de la DSMB o sus familiares no deben tener ninguna relación profesional, de propiedad o financiera con las empresas patrocinadoras», según un comunicado del Instituto Nacional de Alergias y Enfermedades Infecciosas, que organizó la DSMB común para los candidatos a la vacuna de covid-19 bajo la Operación Warp Speed, entre los que se incluyen las vacunas de Moderna, AstraZeneca y Johnson & Johnson. «No se permite que los miembros seleccionados para la DSMB y sus familiares hayan trabajado para otras empresas que desarrollan vacunas contra el covid-19».

Topol, de Scripps Research, dijo que «no hay precedentes de una DSMB con tanta autoridad». Normalmente, cada ensayo clínico tiene su propia DSMB.



Tal es el caso de Pfizer, cuyos ensayos clínicos no están ni bajo la DSMB común ni financiado por el gobierno. La DSMB de Pfizer incluye «un presidente y 4 miembros adicionales que se reúnen semanalmente», según una portavoz.

Topol lo considera pequeño para un ensayo que pretende inscribir hasta 44,000 participantes. «Las pruebas que realicé siempre tuvieron seis o siete al menos, a veces ocho o nueve», comentó. «En los ensayos grandes, debes tener un bioético, un virólogo, un inmunólogo, un epidemiólogo … Tienes todas las áreas críticas cubiertas».

Un gran honor, pero sin derecho a presumir

Es un gran honor ser nombrado miembro de una DSMB. Pero no es algo de lo que se pueda presumir, como descubrió recientemente una universidad.

Esta universidad publicó con orgullo que uno de sus profesores fue nombrado presidente de la DSMB para los ensayos de vacunas contra el coronavirus respaldados por el gobierno.

Cuando CNN llamó para preguntar por qué se identificó públicamente al profesor, la universidad rápidamente eliminó el comunicado de prensa. «Parece que un miembro del personal compartió esa noticia y no sabía que no era para consumo público», escribió un portavoz de la universidad a CNN.

CNN no va a revelar el nombre del profesor ni de la universidad. A pesar de la falta de reconocimiento público, fama y gloria, Ellenberg asegura que hay mucha motivación para formar parte de estas juntas. «Uno siente una gran responsabilidad cuando participa en estas pruebas», dijo. «Todo el mundo te está confiando estos datos».

Ellenberg se mantiene fiel en el proceso de la DSMB. Si sale como debe, «yo misma me vacunaría y recomendaría a otras personas que la tomen», dijo.

No obstante, Ellenberg admite que «estamos en territorio desconocido». La semana pasada , el presidente Trump afirmó que la Casa Blanca podría bloquear el intento de la FDA de hacer más estrictas las normas para la vacuna para el covid-19, unas normas que podrían impedir que se tenga una vacuna aprobada antes del día de las elecciones. «A nadie se le ocurriría que alguien fuera de la FDA intentaría interferir con eso», señaló Ellenberg. «Y tengo la esperanza de que no lo hagan».

Fuente: CNN en Español. Disponible en https://cutt.ly/sgsjM6S

Europe's drugs regulator speeds up the approval process for Pfizer and BioNTech's COVID-19 vaccine

6 oct. Europe's drug regulator has taken action that could speed up the approval of a COVID-19 vaccine developed by Germany's BioNTech and the US pharmaceutical group Pfizer.

A new "rolling review" launched by the European Medicines Agency on Tuesday will evaluate how effective the vaccine is in real time as data returns from patient trials. This means the agency will not wait for BioNTech and Pfizer to finish their trials and submit all the data at once.

The review could therefore speed up authorization of the vaccine should it ultimately prove safe and effective.

The agency on Tuesday said it had begun looking at data from laboratory studies on the vaccine. It would continue to assess data until it had enough to make a final decision, it said.

The decision to kick off the rolling review of BioNTech and Pfizer's COVID-19 vaccine is based on the results of earlier clinical trials in adults that found the vaccine triggered an immune response, the agency said.

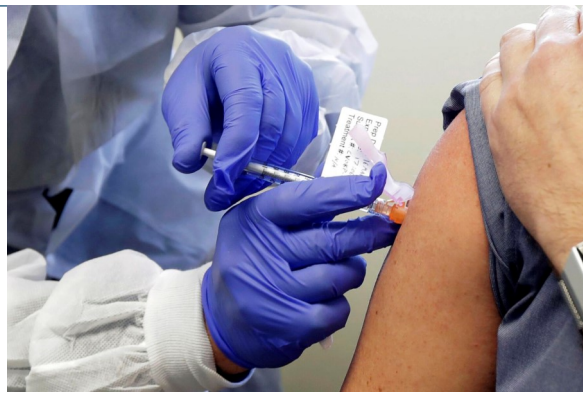
The vaccine is the second COVID-19 candidate to be approved for a rolling review by the EMA. The agency confirmed on Thursday that it had started a rolling review of the vaccine developed by AstraZeneca and the University of Oxford. This followed a pause in trials of the vaccine, after a participant reported severe neurological symptoms — the UK has resumed trials, while the US is still investigating.

Pfizer's vaccine is in late-stage studies in the US, Brazil, South Africa, and Argentina.

BioNTech and Pfizer's vaccine could be one of the earliest COVID-19 candidates to be approved in Europe. The race for a vaccine on the continent is becoming ever more urgent as the infection rate rises. The known global coronavirus death toll passed 1 million on September 29.

Fuente: BUSINESS INSIDER. Disponible en https://cutt.ly/igskc4O

FDA publica directrices de vacuna bloqueadas por Casa Blanca



6 oct. La Administración de Alimentos y Medicamentos de Estados Unidos publicó el martes los estándares de seguridad para vacunas contra COVID-19 luego de que la Casa Blanca bloqueó su publicación formal, el último capítulo de un estira y afloja entre el gobierno de Donald Trump y los científicos de salud pública.

En las nuevas directrices publicadas en su portal, la agencia conocida como FDA por sus siglas en inglés dijo que los fabricantes de vacunas deben monitorear a los participantes de sus pruebas por al menos dos meses para descartar problemas de seguridad antes de pedir una aprobación de emergencia. Ese requerimiento casi seguramente descartaría la introducción de una vacuna antes del 3 de noviembre, el día de la elección presidencial.

El presidente Donald Trump ha insistido reiteradamente en que pudiera autorizarse una vacuna contra el COVID-19 antes de las elecciones, pese a que los científicos del gobierno dicen que es improbable. El lunes, Trump dijo en un video grabado tras regresar a la Casa Blanca que las vacunas llegarían "de un momento a otro".

Exfuncionarios de la FDA han advertido que la percepción pública de que se está apresurando una vacuna por razones políticas pudiera descarrilar los planes para vacunar a millones de personas en el país.

Un alto funcionario del gobierno confirmó el lunes que la Casa Blanca había bloqueado los planes de la FDA de publicar formalmente las directrices de seguridad basadas en el requerimiento de dos meses de datos, diciendo que no había "razón clínica ni médica" para el mismo.

Pero el martes, la agencia difundió las directrices en su portal, dejando claro que los reguladores planean imponer los estándares de seguridad para cualquier vacuna que solicite una vía acelerada de aprobación.

El comisionado de la FDA, Stephen Hahn, dijo en un comunicado que esperaba que las directrices ayuden "al público a entender nuestro proceso de toma de decisiones sustentado en la ciencia que garantiza la calidad, seguridad y eficacia de las vacunas".

Los estándares están dirigidos a las compañías que buscan una aprobación rápida a través de la vía de autorización de emergencia de la FDA. Ese proceso acelerado, reservado para emergencias de salud, permite que productos médicos lleguen al mercado tras satisfacer requerimientos menores que en el proceso tradicional. Pero la FDA ha dejado claro que solamente las vacunas que demuestran efectividad y seguridad serán autorizadas contra el coronavirus.

El excomisionado interino, doctor Stephen Ostroff, dijo que los requerimientos parecen razonables dado que la agencia está en un territorio desconocido en términos de la consideración del uso de emergencia de una vacuna. La agencia solamente ha aprobado una vacuna previamente por ese método: en el 2005, para el ántrax.

Desde hace semanas, el comisionado Hahn ha intentado reforzar la confianza del público en la revisión de vacunas que realiza la agencia, y ha prometido que los científicos profesionales, no los políticos, decidirán si las inyecciones son seguras y efectivas para la vacunación masiva.

Fuente: Lancaster Online. Disponible en https://cutt.ly/3gskBG1

La Casa Blanca aprobó estándares estrictos para la vacuna contra la COVID-19

7 oct. La Casa Blanca aprobó el martes, después de semanas de retraso, nuevos estándares estrictos para las vacunas contra el coronavirus, pero solo después de que la Administración de Alimentos y Medicamentos (FDA, por sus siglas en inglés) publicó unilateralmente las pautas en su sitio web, como parte de los materiales informativos para asesores de vacunas externos. Los estándares, que se aplicarían a una autorización de uso de emergencia para una vacuna, son los mismos que propuso la agencia hace semanas. En muchos sentidos son similares a las pautas para una aprobación tradicional. Pero la Casa Blanca, preocupada de que los criterios retrasarían la autorización de la vacuna, posiblemente hasta después de las elecciones del 3 de noviembre, retrasó la confirmación.

Pfizer, una de las farmacéuticas pioneras en la vacuna, declaró el martes su apoyo a la FDA en su lucha con la Casa Blanca. Albert Bourla, el director ejecutivo de la compañía, dijo en Twitter: "Pfizer nunca ha discutido las pautas de las vacunas (de la FDA) con la Casa Blanca y nunca lo hará, ya que podría socavar la independencia de la agencia".

Dijo que la independencia de la agencia "es hoy más importante que nunca, ya que la confianza del público en el desarrollo de la vacuna se ha visto erosionada por la politización del proceso", reseñó The Washington Post.

La aprobación de las pautas por parte de la Casa Blanca ocurrió días después de que el presidente Trump acusó a la FDA de diseñar la guía con motivacio-nes políticas; después de que The Washington Post informó que el jefe de gabinete de la Casa Blanca, Mark Meadows, exigía una justificación detallada de la agencia sobre los criterios.

La acción de Meadows generó temores de que la Casa Blanca frustrara o bloqueara los estándares diseñados para aumentar la confianza del público en una vacuna, según personas familiarizadas con la situación, quienes hablaron bajo condición de anonimato.

La FDA proporcionó a la Casa Blanca datos adicionales, pero sin resultados, según un alto funcionario de la Administración Trump. Este martes, cansada de la demora, la FDA eludió a la Casa Blanca al publicar los criterios en línea; como parte de un paquete informativo para una reunión con su comité asesor de vacunas, programada para el 22 de octubre.

Poco después de que se publicaran los estándares, la Casa Blanca aprobó la guía de vacunas, según el funcionario.

La guía es mucho más rigurosa que la que se usó para administrar de emergencia la hidroxicloroquina, un medicamen-to contra la malaria aplicado en los primeros días de la pandemia de coronavirus; o el plasma de convalecencia, que se toma de personas que se han recuperado del COVID-19 y cuyos anticuerpos podrían ofrecer una medida de protección a otros pacientes. Es un esfuerzo por reforzar la confianza en el proceso de desarrollo de la vacuna y en la FDA.

Las pautas recomiendan que los participantes en los ensayos clínicos de vacunas, en sus últimas etapas, sean seguidos durante un promedio de al menos dos meses, comenzando después de recibir una segunda inyección de la vacuna, lo que según los expertos podría dificultar la autorización de una vacuna antes de las elecciones.

El martes por la noche, Trump emitió un tuit proclamando: "Las nuevas reglas de la FDA les dificultan acelerar la aprobación de las vacunas antes del día de las elecciones. ¡Solo otro éxito político!". El presidente etiquetó al comisionado de la FDA, Stephen Hahn, al final del tuit.

Fuente: El Tiempo Latino. Disponible en https://cutt.ly/cgslULm

¿Cuándo tendremos una vacuna contra el covid-19 para niños?

7 oct. En el mundo hay casi 150 candidatas a la vacuna contra el nuevo coronavirus. Pero hasta el momento ninguna de ellas se ha probado en niños.

¿Cuántas vacunas se elaboran hoy en día?

Actualmente hay casi 150 candidatas a vacuna que están siendo desarrolladas por diversos laboratorios en el mundo.

De esas, 59 están en la que se llama la fase clínica de experimentación, es decir, aquella en la que la candidata a vacuna está ya siendo probada en seres humanos, en sus fases 1, 2 y 3.

Las fases 1 y 2 se hacen en algunos centenares de seres humanos voluntarios para probar la seguridad y la efectividad inicial de las vacunas. Mientras que la fase 3, la definitiva, es la que se hace en miles de voluntarios con el objetivo de probar definitivamente si la vacuna funciona o no. Además, recoger información muy valiosa sobre su seguridad.

El hecho es que ninguna de las candidatas a vacuna esta siendo probada en niños. A pesar de que ellos también sufren la enfermedad y se piensa que contribuyen al contagio de sus padres y abuelos.

La vacuna de coronavirus para niños

En la reciente conferencia virtual anual de la Academia Estadounidense de Pediatría, se reveló que, según datos de la Asociación de Hospitales de Niños, estos representan aproximadamente el 10,5% de todos los casos de Covid-19 reportados en Estados Unidos. De los cuales, el 1,7% requiere hospitalización y el 0,02% muere. Unas tasas que son significativamente más bajas que en los adultos.

En números absolutos, según los CDC, de las más de 190.000 personas que murieron en Estados Unidos por Covid-19 desde el 12 de febrero hasta el 31 de julio, solo 121 eran menores de 21 años.

En la misma conferencia, el Dr. Anthony Fauci, director del Instituto Nacional de Alergias y Enfermedades Infecciosas dijo, con respecto a una vacuna pediátrica, que primero deben esperarse los datos de efectividad y seguridad en adultos para iniciar los ensayos clínicos en niños.

Agregó que la obtención de una vacuna para los niños debe lograr un balance entre el desarrollo del producto y -dada la mayor vulnerabilidad del organismo de los niños- la seguridad de la vacuna.

¿Cómo se desarrollan las vacunas que se usan en niños?

Como sabemos, la mayoría de las vacunas disponibles contra la polio, sarampión, paperas, varicela, difteria, entre otras, son principalmente usadas en niños y su desarrollo es muy interesante.

Debido a que el organismo infantil es muy delicado y podrían presentarse problemas inesperados al hacer ensayos en ellos, todas las vacunas infantiles son primero probadas en adultos y, si son seguras en los mayores, se prueban luego en adolescentes y, por último, en niños más pequeños.

Es interesante también saber que ciertas vacunas, como aquellas contra la hepatitis A, hepatitis B, tétanos, difteria y tosferina, tienen dosis diferentes para adultos y niños.

En las vacunas contra la hepatitis A y hepatitis B, por ejemplo, los adultos reciben una mayor cantidad de los componentes que estimulan una respuesta protectora.

En las vacunas contra la difteria y la tosferina son los niños los que reciben una mayor cantidad de sustancia protectora, porque los adultos sufren más efectos secundarios con las dosis pediátricas.

La vacuna pediátrica estaría lista a fines de 2021

Se estima que cuando se tengan más datos de seguridad de las

candidatas a vacunas contra la Covid-19 en adultos se podrán empezar los ensayos en adolescentes, para luego ir progresivamente bajando de edad hasta llegar a los menores de 3 años.

Debido a que los ensayos clínicos en niños son más complicados, pues no solo debe obtenerse el consentimiento de los padres, sino también ir escalando muy cautelosamente con las dosis de vacunación.

No hay duda de que conseguir una vacuna infantil va a tomar un largo tiempo. En vista de los datos disponibles, estimo que esta no estaría lista sino hasta fines de 2021 o 2022.

En resumen, estamos lejos de una vacuna infantil contra la Covid-19.

Los primeros en vacunarse serán los adultos y, entre estos, los trabajadores en la primera línea como profesionales de la salud, policías, bomberos y personas que sufran de enfermedades crónicas con mayores riesgos de complicaciones.

De lo que no hay duda es que, para que los niños puedan volver con seguridad a las escuelas y sus padres y abuelos se sientan mas seguros, una vacuna infantil contra la Covid-19 tendrá que ser desarrollada de todas maneras.

Fuente: CNN en Español. Disponible en https://cutt.ly/wgfkLeR

VacciMonitor es una revista con más de 25 años de difundir los resultados científicos sobre vacunas de instituciones nacionales e internacionales y así coadyuvar a la visibilidad de este sector de la ciencia en Cuba y otros países, principalmente de Hispanoamérica. **http://vaccimonitor.finlay.edu.cu**

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Patentes registradas en PatentScope

Estrategia de búqueda: *Vaccine in the title or abstract AND 20201001:20201007 as the publication date*

24 records

1.WO/2020/196810MICRONEEDLE ARRAY CONTAINING INFLUENZA VACCINE AND METHOD FOR PRODUCING MICRONEEDLE ARRAY
WO - 01.10.2020
Int.Class A61K 39/00 Appl.No PCT/JP2020/013906 Applicant FUJIFILM CORPORATION Inventor KABATA Koki
The present invention addresses the problem of providing a microneedle array that exhibits good stability during influenza vaccine production and a high utilization efficiency of influenza vaccine, and a method for producing the microneedle array. The present invention provides a self-dissolving microneedle array that comprises a sheet part and a plurality of needle parts present on the upper surface of the sheet part. The microneedle array contains a sugar, an influenza vaccine, a natural amino acid or salt thereof, and a surfactant and administers the influenza vaccine into a body through the dissolution of the needle parts.

2.WO/2020/197043ORAL VACCINE PREPARATION FOR FISH OR CRUSTACEANS CONTAINING ACID-TREATED LOW-MOLECULAR-WEIGHT ALGINIC ACID
WO - 01.10.2020
Int.Class A61K 39/385 Appl.No PCT/KR2019/017275 Applicant JUNWON GBI CO., LTD Inventor AHN, Kyoung Jin
The present invention relates to an oral vaccine preparation for fish or crustaceans containing an acid-treated low-molecular-weight alginic acid. The oral vaccine preparation is prepared in the form of beads carrying an attenuated microorganism, and thus, simply through an oral administration method, can easily induce immunization against diseases caused by the corresponding microorganism. Accordingly, the preparation can also address existing

problems with rising costs, reduction in the water quality of farms, and the like, which may occur due to spraying of large amounts of attenuated microorganisms or antibiotics, antimicrobial agents, and the like in fish farms.

3.WO/2020/197346VIRUS VACCINE ADJUVANT COMPOSITION CONTAINING GREEN TEA-DERIVED COMPONENT
WO - 01.10.2020
Int.Class A61K 39/39 Appl.No PCT/KR2020/004289 Applicant INDUSTRY-ACADEMIC COOPERATION FOUNDATION, YONSEI UNIVERSITY Inventor SEONG, Baik Lin
The present invention relates to a virus vaccine adjuvant composition containing epigallocatechin gallate (EGCG) or a green tea extract as an active ingredient. The adjuvant of the present invention not only exhibits an excellent immunostimulatory effect in immune responses to various viruses, but also has almost no toxicity, and thus is outstandingly safe. In addition, when co-administered with alum, the adjuvant containing the green tea extract or EGCG of the present invention may more strongly enhance the immune response of a vaccine.

4.20200308233TRUNCATED ROTAVIRUS VP4 PROTEIN AND APPLICATION THEREOF
US - 01.10.2020
Int.Class C07K 14/005 Appl.No 16901410 Applicant XIAMEN UNIVERSITY Inventor Shengxiang Ge

The invention relates to a truncated rotavirus VP4 protein, a sequence encoding the same, a method for preparing the same, and a pharmaceutical composition and a vaccine comprising the protein, wherein the protein, the pharmaceutical composition and the vaccine are useful for preventing, alleviating or treating rotavirus infection and a disease caused by rotavirus infection, such as rotavirus gastroenteritis and diarrhea. The invention further relates to use of the protein in the manufacture of a pharmaceutical composition or a vaccine for preventing, alleviating or treating rotavirus infection and a disease caused by rotavirus infection, such as rotavirus gastroenteritis and diarrhea.

5.WO/2020/197905USE OF INOSINE FOR CANCER IMMUNOTHERAPY
WO - 01.10.2020
Int.Class A61K 31/708 Appl.No PCT/US2020/023483 Applicant IMMUNOSPARKLE BIOSCIENCE LLC Inventor YUAN, Xiangliang
Disclosed are formulations for the treatment of cancer including inosine or a related compound in combination with an immune checkpoint inhibitor including but not limited to immune checkpoint inhibitor binding agents (including anti-CTLA4, anti-PD1, anti-LAG-3, anti-TIM-3, anti-TIGIT, anti-CD47, anti-VISTA, and anti-PD-L1), and optionally also including a reinforcing agent to boost immune response, including CAR-T, CAR-NK, tumor vaccine, oncolytic virus vaccine, TLR7/8 agonist, anti-CD47 or IL-2 receptor agonist and optionally also including other pharmacologically immune-boosting active agents.

6.20200308555LASSA VACCINE
US - 01.10.2020
Int.Class C12N 7/00 Appl.No 16954592 Applicant INSTITUT PASTEUR Inventor Mathieu MATEO

The invention relates to recombinant measles virus expressing Lassa virus polypeptides, and concerns in particular immunogenic LASV particles expressed by a measles virus and/or virus like particles (VLPs) that contain proteins of a Lassa virus. These particles are recombinant infectious particles able to replicate in a host after an administration. The invention provides means, in particular nucleic acid constructs, vectors, cells and rescue systems to produce these recombinant infectious particles. The invention also relates to the use of these recombinant infectious particles, in particular under the form of a composition, more particularly in a vaccine formulation, for the treatment or prevention of an infection by Lassa virus.

7.202037039948VACCINE COMPOSITIONS
IN - 02.10.2020

Int.Class A61K 39/12 Appl.No 202037039948 Applicant EMERGEX VACCINES HOLDING LIMITED Inventor RADEMACHER, Laurens
The invention provides a vaccine composition comprising a filovirus peptide comprising one or more CD8+ T cell epitopes, wherein the peptide is attached to a nanoparticle.

8.20200308232CORONAVIRUSES EPITOPE-BASED VACCINES
US - 01.10.2020
Int.Class C07K 14/005 Appl.No 15929356 Applicant RAMOT AT TEL-AVIV UNIVERSITY LTD. Inventor Jonathan GERSHONI

Provided are polypeptides derived from the coronaviruses (CoVs) Spike protein (S) characterized by high affinity and specificity the S receptor and its neutralizing antibodies. Further provided are compositions and vaccines, and vaccine-based therapies targeting CoVs, and SARS and MERS viruses in particular.

9.20200306305PEPTIDES AND COMBINATION OF PEPTIDES OF NON-CANONICAL ORIGIN FOR USE IN IMMUNOTHERAPY AGAINST DIFFERENT TYPES OF CANCERS
US - 01.10.2020
Int.Class A61K 35/17 Appl.No 16833162 Applicant Immatics Biotechnologies GmbH Inventor Heiko SCHUSTER

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

10.20200308226NOVEL CELL EPITOPES AND COMBINATION OF CELL EPITOPES FOR USE IN THE IMMUNOTHERAPY OF MYELOMA AND OTHER CANCERS
US - 01.10.2020
Int.Class C07K 7/06 Appl.No 16903119 Applicant Immatics Biotechnologies GmbH Inventor Hans-Georg RAMMENSEE

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

11.20200306311PEPTIDES AND COMBINATION OF PEPTIDES OF NON-CANONICAL ORIGIN FOR USE IN IMMUNOTHERAPY AGAINST DIFFERENT TYPES OF CANCERS
US - 01.10.2020
Int.Class A61K 35/17 Appl.No 16900430 Applicant Immatics Biotechnologies GmbH Inventor Heiko SCHUSTER

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

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

12.20200306358HPV VACCINE
US - 01.10.2020
Int.Class A61K 39/12 Appl.No 16639144 Applicant Oxford University Innovation Limited Inventor Lucy DORRELL

The invention relates to a nucleic acid encoding a polypeptide comprising a plurality of conserved peptide sequences, or variants thereof, wherein the conserved sequences are conserved across one or more HPV genotypes 16, 18, 31, 52, 53, and 58; and wherein the polypeptide comprises a conserved peptide sequence of each of the HPV proteins E1, E2, E4, E5, E6, and E7; and associated vaccines, viral vectors, treatment and prophylaxis.

13.20200306367Therapeutic Vaccine for Hepatitis B Virus (HBV) using the HBV Core Antigen
US - 01.10.2020
Int.Class A61K 39/29 Appl.No 16088386 Applicant UNIVERSITY OF WASHINGTON Inventor Edward CLARK

Provided herein are compositions of CD1280 binding proteins and a Hepatitis B virus core antigen (HBcAg) and/or a Hepatitis B virus E antigen (HBeAg), or antigenic fragments or mutants thereof, attached to the CD180 binding protein, and methods for using the compositions to treat or limit the development of hepatitis-B virus (HBV)-related disorders.

14.20200306364MUCOADHESIVE NANOPARTICLE ENTRAPPED INFLUENZA VIRUS VACCINE DELIVERY SYSTEM
US - 01.10.2020
Int.Class A61K 39/145 Appl.No 16768544 Applicant Ohio State Innovation Foundation Inventor Renukaradhya GOURAPURA

Disclosed herein are nanoparticles comprising chitosan and an inactivated influenza A virus (IAV) antigen, wherein the chitosan encapsulates the inactivated IAV antigen. In some embodiments, the nanoparticle further comprises tripolyphosphate. In some embodiments, the nanoparticle reduces nasal shedding of an influenza A virus. In some embodiments, the nanoparticle elicits an increased amount of IgA antibody in a subject. Also disclosed are methods of reducing transmission of an influenza A virus, and methods of eliciting an immune response against an influenza A virus, in a subject compared to a control comprising administering to the subject a nanoparticle comprising chitosan and an inactivated influenza A virus (IAV) antigen, wherein the chitosan encapsulates the inactivated IAV antigen.

15.20200308250NOVEL PEPTIDES AND COMBINATION OF PEPTIDES FOR USE IN IMMUNOTHERAPY AGAINST VARIOUS TUMORS
US - 01.10.2020
Int.Class C07K 14/74 Appl.No 16900542 Applicant immatics biotechnologies GmbH Inventor Andrea MAHR

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

16.20200306363Synthetic Hemagglutinin as Universal Vaccine Against Infection by Type B Influenza Viruses (IBV)
US - 01.10.2020

Int.Class A61K 39/145 Appl.No 16648439 Applicant Her Majesty the Queen in the Right of Canada as Represented by the Minister of Health Inventor Xuguang Li

A synthetic hemagglutinin (sHA) which represents the highest degree of conservation in the HA sequences of all Influenza B viruses (IVB) based on comprehensive bioinformatics analyses was cloned into an adenoviral vector. The recombinant adenovirus carrying the sHA gene was then delivered intransallyintranasally into DAB/2 mice. The animals were challenged with 5xLD50 influenza B viruses. We have found that the synthetic HA vaccines afford 100% protection against lethal challenge whereas 50% mice died in the control group. Furthermore, no virus was found in the lung of the vaccinated group while significant lung viruses were found in all mice of the controlled group. Consistent with the survival data and virus titre, severe pneumonia was found in all mice of the control group while no pathologic observation was made in animals receiving the vaccines.

17.20200308227NOVEL CELL EPITOPES AND COMBINATION OF CELL EPITOPES FOR USE IN THE IMMUNOTHERAPY OF MYELOMA AND OTHER CANCERS
US - 01.10.2020
Int.Class C07K 7/06 Appl.No 16903152 Applicant Immatics Biotechnologies GmbH Inventor Hans-Georg RAMMENSEE

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

18.WO/2020/198587METHODS FOR TREATING CANCERS USING ANTISENSE
WO - 01.10.2020
Int.Class A61K 31/00 Appl.No PCT/US2020/025217 Applicant THOMAS JEFFERSON UNIVERSITY Inventor HOOPER, Douglas, C.
The present disclosure relates to compositions and methods for treating cancers using antisense (AS) nucleic acids directed against Insulin-like Growth Factor 1 Receptor (IGF-1R). The AS may be administered to the patients systemically, or may be used to produce an autologous cancer cell vaccine. In embodiments, the AS are provided in an implantable irradiated biodiffusion chamber comprising tumor cells and an effective amount of the AS. The chambers are irradiated and implanted in the abdomen of subjects and stimulate an immune response that attacks tumors distally. The compositions and methods disclosed herein may be used to treat many different kinds of cancer, for example glioblastoma. In some embodiments methods are provided to predict the effectiveness of antisense (AS) nucleic acids directed against Insulin-like Growth Factor 1 Receptor (IGF-1R) in a subject.

19.20200308225NOVEL CELL EPITOPES AND COMBINATION OF CELL EPITOPES FOR USE IN THE IMMUNOTHERAPY OF MYELOMA AND OTHER CANCERS
US - 01.10.2020
Int.Class C07K 7/06 Appl.No 16903077 Applicant Immatics Biotechnologies GmbH Inventor Hans-Georg RAMMENSEE

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

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

20.20200306365VACCINATION OF IMMUNOCOMPROMISED SUBJECTS
US - 01.10.2020
Int.Class A61K 39/145 Appl.No 16901185 Applicant Seqirus UK Limited Inventor Giuseppe DEL GIUDICE

Disclosed herein are methods for enhancing immune responses to a vaccine in immunocompromised individuals, including those receiving a statin therapy. Related products are also provided.

21.202048037870VACCINE FOR FALCIPARUM MALARIA
IN - 02.10.2020
Int.Class A61K 39/015 Appl.No 202048037870 Applicant RHODE ISLAND HOSPITAL Inventor KURTIS, Jonathan soft copy Attached

22.20200306308PEPTIDES AND COMBINATION OF PEPTIDES OF NON-CANONICAL ORIGIN FOR USE IN IMMUNOTHERAPY AGAINST DIFFERENT TYPES OF CANCERS
US - 01.10.2020
Int.Class A61K 35/17 Appl.No 16900334 Applicant Immatics Biotechnologies GmbH Inventor Heiko SCHUSTER

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

23.20200308216PHARMACEUTICAL TARGETING OF A MAMMALIAN CYCLIC DI-NUCLEOTIDE SIGNALING PATHWAY
US - 01.10.2020
Int.Class C07H 21/02 Appl.No 16903173 Applicant The Board of Regents of the University of Texas System Inventor Zhijian CHEN

Cyclic-GMP-AMP synthase (cGAS) and cyclic-GMP-AMP (cGAMP), including 2'3-cGAMP, 2'2-cGAMP, 3'2'-cGAMP and 3'3'-GAMP, are used in pharmaceutical formulations (including vaccine adjuvants), drug screens, therapies, and diagnostics.

24.20200308224DEPDC1-DERIVED PEPTIDE AND VACCINE CONTAINING SAME
US - 01.10.2020
Int.Class C07K 7/06 Appl.No 16854586 Applicant ONCOTHERAPY SCIENCE, INC. Inventor SACHIKO YAMASHITA

The present invention provides DEPDC1-derived epitope peptides having the ability to induce cytotoxic T cells. The present invention further provides polynucleotides encoding the peptides, antigen-presenting cells presenting the peptides, and cytotoxic T cells targeting the peptides, as well as methods of inducing the antigen-presenting cells or CTLs. The present invention also provides compositions and pharmaceutical compositions containing them as an active ingredient. Further, the present invention provides methods of treating and/or preventing cancer, and/or preventing postoperative recurrence thereof, using the peptides, polynucleotides, antigen-presenting cells, cytotoxic T cells or pharmaceutical compositions of the present invention. Methods of inducing an immune response against cancer are also provided.

Patentes registradas en la United States Patent and Trademark Office (USPTO)

Results of Search in US Patent Collection db for: (ABST/vaccine AND ISD/20201001->20201007), 11 records.

	PAT. NO.	Title
1	10,793,866	Edible vaccines expressed in yeast for preventing and treating infectious diseases, including hepatitis B, in humans
2	10,792,483	Tumor vaccination
3	10,792,359	Methods of using a vaccine composition containing synthetic adjuvant
4	10,792,358	ISG15 and its use as an adjuvant
5	10,792,357	Optimized HIV envelope gene and expression thereof
6	10,792,354	Feed additive composition for immunoprotection of fish against infectious viral species
7	10,792,351	Compositions and methods of enhancing immune responses to Eimeria or limiting Eimeria infection
8	10,792,350	Peptides and combination of peptides for use in immunotherapy against pancreatic cancer and other cancers
9	10,792,349	Galectin-3 as immunological target
10	10,792,308	Peptides and combination of peptides of non-canonical origin for use in immunotherapy against different types of cancers
11	10,792,307	Peptides and combination of peptides of non-canonical origin for use in immunotherapy against different types of cancers

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