

Flashes Transferencia

NIH study finds probiotic *Bacillus* eliminates *Staphylococcus* bacteria

A new study from National Institutes of Health scientists and their Thai colleagues shows that a “good” bacterium commonly found in probiotic digestive supplements helps eliminate *Staphylococcus aureus*, a type of bacteria that can cause serious antibiotic-resistant infections. The researchers, led by scientists at NIH’s National Institute of Allergy and Infectious Diseases (NIAID), unexpectedly found that *Bacillus* bacteria prevented *S. aureus* bacteria from growing in the gut and nose of healthy individuals. Then, using a mouse study model, they identified exactly how that happens. Researchers from Mahidol University and Rajamangala University of Technology in Thailand collaborated on the project.

The NIAID and Thai scientists next plan to test whether a probiotic product that contains only *B. subtilis* can eliminate *S. aureus* in people. They plan to enroll more Thai volunteers for the project. Michael Otto, Ph.D., the NIAID lead investigator, says, “Ultimately, we hope to determine if a simple probiotic regimen can be used to reduce MRSA infection rates in hospitals.”

More info: <https://bit.ly/2PrNBU8>

Vaccines for Antimicrobial Resistance – new report provides evidence for realising the potential of these under-utilised tools

Vaccines and antibiotics are two of the most important discoveries in the history of human health, saving millions of lives in our fight against infectious diseases.

Bacterial infections are treated with rounds of antibiotics designed to kill the bacteria and help people get well, but these treatments are becoming less and less effective due to antimicrobial resistance (AMR). Drug-resistant infections are one of the biggest threats to global health and could potentially make routine procedures, such as caesareans and chemotherapy, life threatening. The threat is urgent and the time to take action is now. We need to take a One Health approach with interventions across human health, animal health and the environment, making use of all the tools available. One of these tools – which is currently under-utilised to combat drug resistant infections – is vaccines.

Vaccines can play a greater role in addressing the threat posed by AMR by offering a long-term sustainable approach to infection prevention. Immediate action, focus and funding for vaccine development is urgently needed.

More info: <https://bit.ly/2QgYaNu>

New 'Trojan horse' antibiotic promising

Scientists say they have engineered a new antibiotic that appears promising in early clinical trials. The drug, made by Shionogi Inc, acts like the Trojan horse in Greek legend to trick bacteria into allowing it to enter. Trials on 448 people with a kidney or urinary tract infection suggested the drug was as effective as current treatments. Experts said the findings were an encouraging development.

'Safe and tolerable'

The drug takes inspiration from the story of the giant wooden horse which was used to sneak Greek warriors into the city of Troy. But instead of wood, iron is used to smuggle an antibiotic into bacteria. Dr. Simon Portsmouth, who led the international research, said: "During an acute infection, one of our innate immune responses is to create an iron-poor environment. "In response, bacteria increase their iron intake."

The new antibiotic, *cefiderocol*, binds to iron and, in a deadly mistake, bacteria transport it past their defences and inside their cells. The trial results have been reported in the *Lancet Infectious Diseases* journal. "Cefiderocol was found to be both safe and tolerable," says Dr. Portsmouth.

The study is a rare development in the field. Bacteria becoming resistant to antibiotics is making some infections incredibly difficult to treat. The Review on Antimicrobial Resistance made stark predictions for the future, including 10 million people dying every year from drug-resistant infections by 2050.

Yet new drugs are in scarce supply.

Prof Serge Mostowy, from the London School of Hygiene & Tropical Medicine, said: "This important study offers hope for a new antibiotic that could potentially be an alternative to treating them, but we are not there yet." Much larger trials are still needed to be sure of the effectiveness of the new antibiotic.

Experiments in people with pneumonia and those with infections that are resistant to some of our most powerful drugs, carbapenems, are already under way. However, once cefiderocol is smuggled inside, it kills bacteria in the same way as current antibiotics. Experts say that new classes of antibiotics - that attack bacteria in completely new ways - are urgently needed.

More info: <https://bbc.in/2CUBk7b>

El IIS La Fe y Bemygene firman un acuerdo de licencia para comercializar un kit epigenético de diagnóstico precoz de cáncer de pulmón

El Instituto de Investigación Sanitaria La Fe, el Instituto de Investigación Biomédica de Bellvitge (IDIBELL), el Centro de Investigación Médica Aplicada (CIMA) de la Universidad de Navarra y la empresa valenciana de servicios avanzados de prevención de cáncer y asesoramiento genético Bemygene, han firmado un acuerdo de licencia para comercializar un kit de diagnóstico precoz para cáncer de pulmón.

Este sistema, patentado internacionalmente, permite combinar el estado epigenético de cuatro genes para generar un valor de probabilidad de cáncer de pulmón personalizado para cada paciente.

El director de la Unidad de Epigenómica y contratado Miguel Servet en el Grupo de Biomarcadores y Medicina de Precisión del IIS La Fe, el doctor Juan Sandoval, ha sido el investigador principal de este proyecto de investigación que se trasladará al paciente a través de un kit de diagnóstico. El kit es el resultado de la investigación financiada con fondos FEDER y del Instituto de Salud Carlos III, recogidos en el artículo 'A novel epigenetic signature for early diagnosis in lung cancer', publicado en la revista científica Clinical Cancer Research en 2016.

Bemygene ha elaborado un estudio que ha permitido definir el segmento de pacientes en el que el kit será realmente necesario, debido a las limitaciones de las técnicas convencionales, favoreciendo así su futura introducción en la rutina clínica.

Más información: <https://bit.ly/2BoocpF>

Grifols se dispara en Bolsa tras presentar una terapia contra el Alzheimer

Las acciones de la empresa subían más de un 13% tras la apertura de la sesión del pasado 29 de octubre. El repunte se produce después de que la empresa haya presentado los resultados de una nueva terapia contra el Alzheimer.

Se trata del primer tratamiento para esta enfermedad que se presenta en dos décadas. El ensayo se llama AMBAR y muestra una ralentización en el deterioro que provoca esta enfermedad.

Grifols ha presentado los resultados de eficacia de su estudio AMBAR (Alzheimer Management by Albumin Replacement) en el Congreso “Clinical Trials on Alzheimer’s Disease” (CTAD). Los resultados demuestran una significativa ralentización del Alzheimer en pacientes en estadio moderado y suponen un gran paso adelante en el tratamiento de esta enfermedad.

Más información: <https://bit.ly/2DQBTQH> y <https://bit.ly/2Qf1Fnq>

Investing in New Antibiotic Research: Difficult Equation Discussed at World Investment Forum

The diminishing arsenal of efficient antibiotics to fight bacteria is a threat denounced by many, but investment in research and development of new antibiotics is seen as lagging. As the danger of getting back to a pre-antibiotic age is increasing, alternative ways of financing new antibiotics are being discussed. At the World Investment Forum, a panel looked into innovative means of investment, and ways to attract private investors to this field.

More info: <https://bit.ly/2P3clkG>

Oryzon Raises 13 million euros through a Private Placement with US and European investors

Oryzon Genomics, S.A., a public clinical-stage biopharmaceutical company leveraging epigenetics to develop therapies in diseases with strong unmet medical need, announced the successful pricing of a capital increase of 4,961,833 new common shares, for gross proceeds expected of approximately EUR 13 million issued at a price of EUR 2.62 per share, representing a 12% discount on the closing price of the last three trading days. The offering included institutional investors specialized in healthcare and life sciences from the United States of America and Europe. The Company intends to use the net proceeds from the capital increase to finance the Company's research and development of clinical pipeline candidates, as well as for working capital and other general corporate purposes. The CEO and President of the Company, Carlos Buesa, and the Member of the Board of Directors, Josep María Echarri, have subscribed shares, attending the round in their personal capacity.

More info: <https://bit.ly/2KxcFqX>

Galecto Biotech raises €79 million in series C financing co-led by Ysios Capital and OrbiMed to advance galectin inhibitor to late-stage clinical development

Galecto Biotech AB, the leading developer of galectin modulators for the treatment of severe diseases, including fibrosis and cancer, announced the successful closing of a €79 million series C financing co-led by Ysios Capital and OrbiMed. New investors Ysios Capital, OrbiMed, HBM Healthcare Investments, OrbiMed Israel, Bristol Myers-Squibb, Maverick Ventures and Seventure Partners joined existing investors Novo Seeds, M Ventures, and Sunstone Capital in the financing round. Concurrent with the financing, Karen Wagner (Ysios Capital), Chau Khuong (OrbiMed), Chandra Leo (HBM) and Erez Chimovits (OrbiMed Israel) were appointed to the Galecto Board of Directors.

More info: <https://bit.ly/2JnhSkV>

La Fundación La Marató impulsa 36 proyectos de investigación biomédica sobre enfermedades infecciosas

Los fondos recaudados en la edición de 2017 de la Marató de TV3 y Catalunya Ràdio financiarán 36 proyectos de investigación biomédica de excelencia en enfermedades infecciosas para impulsar la creación de nuevas herramientas de prevención y diagnóstico, así como tratamientos más eficientes con el objetivo de ganar años y mayor calidad de vida para los pacientes.

Los 9,8 millones de euros recaudados en la edición 2017 de la Marató han permitido sensibilizar a la sociedad e impulsarán la investigación sobre las enfermedades infecciosas, que causan una de cada tres muertes en el mundo.

Los 55 equipos premiados trabajarán durante los próximos tres años para encontrar respuestas a un conjunto de patologías que, según los expertos, se convertirán en un grave problema de salud pública en los próximos años. Del total de los proyectos premiados, 24 son unitarios y 12 coordinados entre dos o más instituciones de investigación.

Más información: <https://bit.ly/2OWEzxd>