BioSpectrum the business of Bio & Health Sciences

Sanofi, Oxford in JV for oncology research

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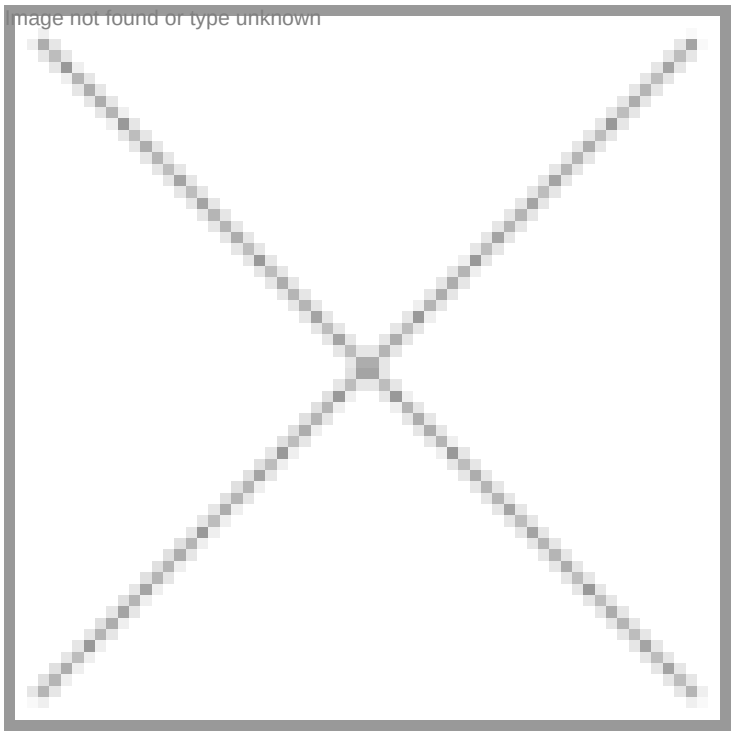
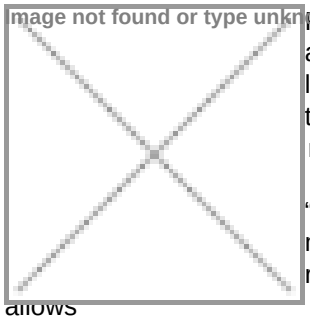
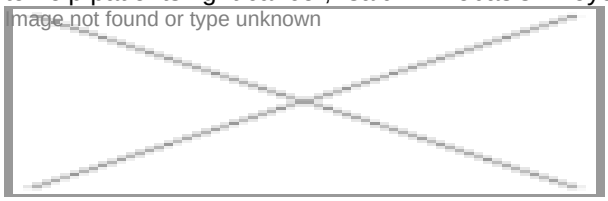


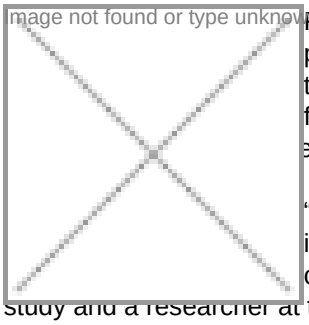


France-based pharma company, Sanofi-aventis and Oxford University, UK, have entered into an agreement to conduct multi-phase oncology clinical and translational research with INDOX, India's leading academic oncology network. Through this partnership, Sanofi-aventis will have access to the expertise and experience of India's top oncologists and scientists to conduct clinical research to recognized ethical standards.

"The collaboration between Sanofi-aventis, Oxford University and Indian Cancer Centers, foster a model for academic researchers and industry to work together for the benefit of patients. This relationship not only helps to train the next generation of cancer researchers in India, but also allows
Sanofi-aventis to efficiently develop drugs in premier cancer centers in India, which also provide access to anti-cancer drugs to help patients fight cancer," said Dr Debasish Roychowdhury, senior vice president & head (Oncology), Sanofi-aventis.



Intestinal tissue transplantion, a reality



For the first time, scientists have created functioning human intestinal tissue in the laboratory from pluripotent stem cells. Scientists from Cincinnati Children's Hospital Medical Center in the US claim that their findings will open the door to unprecedented studies of human intestinal development, function and disease. According to the researchers, the process is also a significant step towards e for transplantation.

"This is the first study to demonstrate that human pluripotent stem cells in a petri dish can be instructed to efficiently form human tissue with three-dimensional architecture and cellular composition remarkably similar to intestinal tissue," said Dr James Wells, senior investigator of the study and a researcher at the division of Developmental Biology at Cincinnati Children's Hospital.
In the study, the research team led by Dr Wells used two types of pluripotent cells: human embryonic stem cells (hESCs)and induced pluripotent stem cells (iPSCs). iPSCs were generated by reprogramming biopsied human skin cells into pluripotent stem cells.

Researchers used both iPSCs and human embryonic stem cells in this study so they could further test and compare the transformative capabilities of each.

Flu infections may prevent asthma

As per the findings of a new research on asthma, scientists at Children's Hospital Boston (US), report that the influenza virus infection in young mice protected it from developing allergic asthma. The same protective effect was achieved by treating young mice with compound isolated from the bacterium Helicobacter pylori (H. pylori), a bacterium that colonizes the stomach and is best known for causing ulcers.

The findings, published in the Journal of Clinical Investigation, provide a potential immunological mechanism in support ofthe "hygiene hypothesis," an idea that attributes the increasing rate of asthma and allergies to the successful reduction of childhood infections with vaccines and antibiotics. This is supported by epidemiological studies associating certain childhood infections, such as respiratory viral infections or gastrointestinal infection with H. pylori, with a lower risk of developing asthma.

In mice, influenza A infection helped it by expanding an immature cell type in the lung known as natural killer T (NKT) cells, part of the innate immune system. The same beneficial NKT cells in the lung could be expanded by several NKT-stimulating molecules known as glycolipids, including one isolated from H. pylori.

The latest study reports on this new subset of inhibitory NKT cells that seem to prevent allergic reactions in the airways, if stimulated at the right time by the right infectious agents or the right glycolipid.