

RMRC, Bhubaneswar

(Laxmi Narayan Memorial Library)

Weekly Current Awareness Service

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“What we have to learn to do, we learn by doing.”

— Aristotle

About Monday Morning

Monday morning is a weekly E- CAS (Electronic Current Awareness Service) of RMRC Library, Bhubaneswar which carries one Biomedical & health science news item and some useful current medical research links so that the scientists can access the articles. This E- Bulletin starts its journey from 21st Nov. 2016. In this maiden attempt we cordially invite your inputs and suggestions to improve in future.

Dr. Banamber Sahoo, Lib & Inf. Officer
Poonam Singh Deo & Hemanti Mahali (Lib. Trainee)

Anti-inflammatory drug to help stroke patients

ALTERNATIVE USE

LONDON: Researchers have found that an anti-inflammatory drug — licensed for treating rheumatoid arthritis — may help patients in the early stages of stroke to reduce harmful inflammation. The study follows earlier research that shows the drug given as an intravenous therapy reduces inflammation in stroke and sub-arachnoid haemorrhage patients.

According to researchers, stroke is one of the most common cause of disability in adults and a leading cause of death worldwide.

“Though strokes affect different people in different ways, for many people they have a devastating effect on their long-term health and wellbeing. Excessive inflammation after a stroke is known to be harmful and predicts a worse outcome in patients,” said co-author Craig Smith, Professor at The University of Manchester.

For the study, published in the journal *Stroke*, researchers recruited 80 participants. They were given six doses of the drug or placebo over three days. The first dose was given within six hours after the onset of the stroke symptoms.

The drug — Kineret — was given as a small injection just under the skin without giving the patients any identifiable adverse reactions. Inflammatory markers were measured in the blood before treatment began and during study treatment and the study looked at ischemic strokes only.

“We have shown that Kineret injections, started within six hours of stroke onset



significantly reduces levels of inflammation in patients,” said co-author of the study Craig Smith, Professor at The University of Manchester.

It is one of biologic agents transforming treatment in a range of illnesses, the researcher said. The protein Interleukin-1 (IL-1) is part of the body’s defences and naturally produced to combat a range of illnesses. However, researchers have previously shown IL-1 increases inflammation and brain injury following a stroke. Kineret works by blocking the actions of IL-1 which is released into the body following injury caused by a stroke.

1. 'Nanobot' viruses tag and round up bacteria in food and Water

Viruses engineered into “nanobots” can find and separate bacteria from food or water. These viruses, called bacteriophages or just phages, naturally latch onto bacteria to infect them. By tweaking the phages’ DNA and decking them out with magnetic nanoparticles, researchers created a tool that could both corral bacteria and force them to reveal themselves..For more details click on the below link

<https://www.sciencenews.org/article/nanobot-viruses-tag-and-round-bacteria-food-and-water?tgt=nr>

2. Humans risked limb ischemia in exchange for bipedal walking

Peripheral obstructive arterial disease develops when blood vessels narrow due to arteriosclerosis and blood flow in the legs (or rarely the arms) becomes clogged. Intermittent claudication is when blood flow disturbances in a limb causes pain, numbness, or coldness during physical activity. In severe cases, where the tissue has gone without blood for too long and dies, the limb may have to be amputated. For more details click on the below link

https://www.eurekalert.org/pub_releases/2018-03/ku-hr1032718.php

3. Here's Why Antibiotics May Give Viruses a Leg Up

Why are infections from the viruses that cause West Nile fever, dengue and even Zika deadly for some people but mild in others? The answer thus far has been chalked up to being mostly a matter of human genetics. But a major factor in whether these viruses wreck your health may come down to the profile of bacteria that inhabit your intestines, called the gut microbiome, a new study in mice suggests. For more details click on the below link

<https://www.livescience.com/62133-antibiotics-virus-infection-mice.html>

4. Lateral habenula perturbation reduces default-mode network connectivity in a rat model of depression

Hyperconnectivity of the default-mode network (DMN) is one of the most widely replicated neuroimaging findings in major depressive disorder (MDD). Further, there is growing evidence for a central role of the lateral habenula (LHb) in the pathophysiology of MDD. There is preliminary neuroimaging evidence linking LHb and the DMN, but no causal relationship has been shown to date..For more details click on the below link

<https://www.nature.com/articles/s41398-018-0121-y>



E- CAS (Current Awareness Service)

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