

RMRC, Bhubaneswar

(Laxmi Narayan Memorial Library)

Weekly Current Awareness Service

Vol.2 # 35

28th August

2017

“ANY BOOK THAT HELPS A CHILD TO FORM A HABIT OF READING, TO MAKE READING ONE OF HIS DEEP AND CONTINUING NEEDS, IS GOOD FOR HIM.”

— MAYA ANGELOU

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
Satyajit Nayak & Twinkle Rout (Lib. Trainee)

Bacteria that helps boost athletic performances

NEW YORK: Tapping into the microbiome of runners and rowers, scientists have identified a bacteria that inhabits their digestive tracts and may aid in athletic performance, a finding that can help develop probiotic bacteria for applications in performance and recovery.

The results showed that the bacteria that inhabits the digestive tracts of the athletes may help develop probiotic supplements that could help them, and even amateur fitness enthusiasts, recover from a tough workout or more efficiently convert nutrients to energy. “We are more bacteria than we are human. The bugs in our gut affect our energy metabolism, making it easier to break down

carbohydrates, protein and fibre,” said Jonathan Scheiman, post-doctoral student at Harvard Medical School.

“They are also involved in inflammation and neurological functions. So perhaps the microbiome could be relevant for applications in endurance, recovery and maybe even mental toughness,” Scheiman added.

For the study, presented at the 254th National Meeting and Exposition of the American Chemical Society (ACS) in Washington, the team collected fecal samples on a daily basis from 20 athletes training for the 2015 Boston Marathon, to capture how the microbiome changes between performance and recovery.

Results after comparison

Researchers found a sudden spike in the population of one particular type of bacteria after the marathon.

1. Zebrafish implanted with a cancer patient's tumor could guide cancer treatment.

Eight years ago, developmental biologist Rita Fior learned that her mother, who needed cancer treatment at the time, would receive different drugs depending on nothing more than which hospital she chose. Fior was taken aback. “You don’t know if it’s better to take drug A or B,” she says. “This is a big problem.” Now she is addressing the problem—with a fish. For more details click on the below link.

<http://www.sciencemag.org/news/2017/08/zebrafish-implanted-cancer-patient-s-tumor-could-guide-cancer-treatment>

2. Arsenic in drinking water threatens up to 60 million in Pakistan.

It has been called the largest mass poisoning in history. After wells were drilled in Bangladesh and the rest of the Indian subcontinent in the 1970s, millions of people have been exposed to arsenic in drinking water. When leached into water from surrounding rocks and soil, the metal can—at high concentrations—cause skin lesions, cancer, cardiovascular diseases, and neurodevelopmental delays. Now, a study suggests Pakistan might be grappling with its own arsenic emergency, with up to 60 million people exposed to contaminated water. For more details click on the below link.

<http://www.sciencemag.org/news/2017/08/arsenic-drinking-water-threatens-60-million-pakistan>

3. Flame retardants and likelihood of pregnancy in women undergoing fertility treatments.

Women with higher urinary concentrations of a common type of flame retardant had reduced likelihood of clinical pregnancy and live birth than those with lower concentrations, according to researchers at Harvard T.H. Chan School of Public Health. The study, conducted in the Fertility Clinic at Massachusetts General Hospital, is the first to examine associations between organophosphate flame retardants (PFRs) -- which are used in polyurethane foam in many products, including upholstered furniture, baby products, and gym mats -- and reproductive outcomes in women. For more details click on the below link.

https://www.eurekalert.org/pub_releases/2017-08/htcs-fr082317.php

4. Protein tangles behind Alzheimer’s disease may be critical for human reproduction.

Semen has something in common with the brains of Alzheimer’s sufferers: Both contain bundles of protein filaments called amyloid fibrils. But although amyloid accumulation appears to damage brain cells, these fibrils may be critical for reproduction. A new study suggests that semen fibrils immobilize subpar sperm, ensuring that only the fittest ones make it to the egg. For more details click on the below link.

<http://www.sciencemag.org/news/2017/07/protein-tangles-behind-alzheimer-s-disease-may-be-critical-human-reproduction>



E- CAS (Current Awareness Service)

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