

RMRC, Bhubaneswar

(Laxmi Narayan Memorial Library)

Weekly Current Awareness Service

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“I HAD FOUND MY RELIGION: NOTHING SEEMED MORE IMPORTANT TO ME THAN A BOOK. I SAW THE LIBRARY AS A TEMPLE.”

— Jean-Paul Sartre

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)

Human ancestors moved out of Africa earlier than thought

Contrary to previous estimate of 765-550k years, German research pegs period at 470-220k years ago



1937

The femur of a Neanderthal excavated from the Hohlenstein-Stadel Cave in southwestern Germany in 1937 helped follow up on the theory that a hominin migration out of Africa might have occurred prior to the major dispersal of modern humans.



BERLIN: A group of early human ancestors may have migrated out of Africa much earlier than thought and bred with Neanderthals in Europe.

Genetic data recovered by scientists from the Max Planck Institute for the Science of Human History and the University of Tübingen provides a timeline for a proposed hominin migration out of Africa that occurred after the ancestors of Neanderthals arrived in Europe by a lineage more closely related to modern humans. These hominins interbred with Neanderthals already present in Europe, leaving their mark on the Neanderthals' mitochondri-

al DNA. The study, published in the journal *Nature Communications*, pushes back the possible date of this event to between 470,000 and 220,000 years ago.

Prior research analysing nuclear DNA from Neanderthals and modern humans estimated the split of the two groups at about 765,000 to 550,000 years ago. However, studies looking at mitochondrial DNA showed a much more recent split of around 400,000 years ago. Mitochondrial DNA of Neanderthals is more similar to that of modern humans, and indicates a more recent common ancestor, than to that of their close nuclear relatives the Denisovans.

1. How Canadian researchers reconstituted an extinct poxvirus for \$100,000 using mail-order DNA.

Recreating smallpox, one of the deadliest diseases in history, took humanity decades and cost billions of dollars. Bringing the scourge back would probably take a small scientific team with little specialized knowledge half a year and cost about \$100,000. For more details click on the below link.

<http://www.sciencemag.org/news/2017/07/how-canadian-researchers-built-poxvirus-100000-using-mail-order-dna>

2. Personalized cancer vaccines show glimmers of success.

Vaccines tailored to match a person's particular constellation of cancer mutations seem to have fended off tumours in a handful of patients, two small clinical trials show. The vaccines are described in papers published in *Nature* on 5 July^{1,2}. The studies are the first to report that the approach — which is gaining support in academia and industry — could combat cancer in humans. They also provide hints about ways to boost the vaccines' power by combining them with treatments that target the immune system, called immunotherapies. For more details click on the below link.

<http://www.nature.com/news/personalized-cancer-vaccines-show-glimmers-of-success-1.22249>

3. Simple test predicts return of bladder cancer.

Scientists have devised a simple test for an earlier and more accurate warning of returning bladder cancer than existing methods, according to research* published in the *British Journal of Cancer* today (Friday). Researchers from the University Hospital of Lyon tested the urine of 348 bladder cancer patients for a faulty protein called TERT, and this was able to predict when the cancer was about to return in more than 80 per cent of patients. The standard method, called cytology, detected the return in only 34 per cent of patients. For more details click on the below link.

https://www.eurekalert.org/pub_releases/2017-07/cru-stp070617.php

4. WHO Weekly epidemiological record.

Hepatitis B vaccines: WHO position paper – July 2017. For more details click on the below link.

<http://apps.who.int/iris/bitstream/10665/255841/1/WER9227.pdf>



E- CAS (Current Awareness Service)

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