

RMRC, Bhubaneswar

(Laxmi Narayan Memorial Library)

Weekly Current Awareness Service

Vol.2 # 5

30th January

2017

EVERYTHING YOU NEED FOR BETTER FUTURE AND SUCCESS HAS ALREADY BEEN WRITTEN. AND GUESS WHAT? ALL YOU HAVE TO DO IS GO TO THE LIBRARY.

Henri Frederic Amiel

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)

N America inhabited 24k years ago

Study on Bluefish Caves suggests humans arrived on continent much earlier than thought

TORONTO: Humans may have stepped into North America about 10,000 years earlier than previously believed, a new study has found. The earliest settlement date of North America, until now estimated at 14,000 years Before Present (BP) is now estimated at 24,000 BP, at the height of the last ice age or Last Glacial Maximum. The researchers at University of Montreal (UdeM) in Canada made their discovery using artifacts from the Bluefish Caves, located on the banks of the Bluefish River in northern Yukon near the Alaska border.

The site was excavated by archaeologist Jacques Cinq-Mars between 1977 and 1987. Based on radiocarbon dating of animal bones, the researcher made the bold hypothesis that human settlement in the region dated as far back as 30,000 BP. In the absence of other sites of similar age, Cinq-Mars' hypothesis remained highly controversial in the scientific community. Moreover, there was no evidence that



How it started

Earliest human migrations and expansions of modern humans across continents began 2 million years ago with the migration out of Africa of Homo erectus.

the presence of horse, mammoth, bison and caribou bones in the Bluefish Caves was due to human activity.

To set the record straight, Lauriane Bourgeon from UdeM examined the about 36,000 bone fragments culled from the site and preserved at the Canadian Museum of History in Gatineau — an enormous undertaking

that took her two years to complete. Comprehensive analysis of certain pieces at UdeM's Ecomorphology and Paleoanthropology Laboratory showed undeniable traces of human activity in 15 bones. Around 20 other fragments also showed probable traces of the same type of activity. "Series of straight, V-shaped lines on the surface of the bones were made by stone tools used to skin animals.

These are indisputable cut-marks created by humans," said Ariane Burke, professor at UdeM. Bourgeon submitted the bones to further radiocarbon dating. The oldest fragment, a horse mandible showing the marks of a stone tool apparently used to remove the tongue, was radiocarbon-dated at 19,650 years, which is equivalent to between 23,000 and 24,000 cal BP (calibrated years Before Present). "Our discovery confirms previous analyses and demonstrates that this is the earliest known site of human settlement in Canada," said Burke.

- 1. Indian human microbiome initiative: Indian-ness through the magnifying glass.**

The quest for the molecular basis of genetic inheritance began with Griffith's experiments in 1928, and by 1944 it was unequivocally established that DNA is the molecule which carries the genetic information. The initial techniques for DNA sequencing developed by Maxam, Gilbert and Sanger were revolutionary and yielded useful information. However, these were not suitable to obtain whole genome sequences. The sequence of its DNA is the key to understanding the genetic make-up of an organism. For more details click on the below link.
<http://www.currentscience.ac.in/Volumes/112/02/0207.pdf>
- 2. How heart disease stunts the brains of newborns.**

Many children with congenital heart disease (CHD)—the most common major birth defect in the United States—sustain brain damage that often leads to problems with behavior, thinking, and learning. Now, for the first time, researchers have described how the lack of brain oxygen that results from heart malformations might stunt the brains of newborns, opening avenues to potential therapies that could be used even before babies are born. For more details click on the below link.
<http://www.sciencemag.org/news/2017/01/how-heart-disease-stunts-brains-newborns>
- 3. World's foremost institute on death and disease metrics gets massive cash boost.**

A huge cash boost from the Gates Foundation will help the Institute for Health Metrics and Evaluation bolster work for the next ten years. For more details click on the below link.
<http://www.nature.com/news/world-s-foremost-institute-on-death-and-disease-metrics-gets-massive-cash-boost-1.21373>
- 4. Pancreatic cancer: are more chemotherapy and surgery needed?**

Most patients diagnosed with pancreatic cancer die from the disease. Although mortality from the most common cancers has declined in the past few decades, the mortality for patients with pancreatic cancer has remained high. On the basis of rising incidence, demographic data, and survival projections, pancreatic cancer is predicted to become the second most deadly cancer in the near future. For more details click on the below link.
[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(17\)30126-5/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)30126-5/fulltext)
- 5. Stem cell secretions may protect against glaucoma.**

A new study in rats shows that stem cell secretions, called exosomes, appear to protect cells in the retina, the light-sensitive tissue in the back of the eye. The findings, published in *Stem Cells Translational Medicine*, point to potential therapies for glaucoma, a leading cause of blindness in the United States. The study was conducted by researchers at the National Eye Institute (NEI), part of the National Institutes of Health. For more details click on the below link.
https://www.eurekalert.org/pub_releases/2017-01/nei-scs012517.php



E- CAS (Current Awareness Service)

Monday Morning team

Library & Information Division

Regional Medical Research Centre (ICMR)

Bhubaneswar- 751023, ODISHA

E- Mail: drbsahoo@gmail.com, Tel: 9438182087