

# RMRC, Bhubaneswar

## (Laxmi Narayan Memorial Library)

### Weekly Current Awareness Service

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*“As you grow older, you will discover that you have two hands  
One for helping yourself, the other for helping others.”*

— Audrey Hepburn

### 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 21<sup>st</sup> 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)

## Phone & substance addiction same

Notifications & alerts compel us to check devices by triggering neural pathways in brains

WASHINGTON: Overuse of smartphones is just like any other type of substance abuse, say scientists who found that digital addiction makes people feel lonely, depressed and anxious.

Smartphones are an integral part of most people's lives, allowing us to stay connected and in-the-know at all times. The downside of that convenience is that many of us are also addicted to the constant pings, chimes, vibrations and other alerts from our devices, unable to ignore new emails, texts and images.

In a study published in the journal *NeuroRegulation*, researchers argue that overuse of smart phones is just like any other type of substance abuse.

“The behavioural addiction of smartphone use begins forming neurological connections in the brain in ways similar to how opioid addiction is experienced by people taking Oxycontin for pain relief — gradually,” said Erik Peper, from San Francisco State University in the US.

On top of that, addiction to social media technology may actually



have a negative effect on social connection. In a survey of 135 students, researchers found that students who used their phones the most reported higher levels of feeling isolated, lonely, depressed and anxious.

They believe the loneliness is partly a consequence of replacing face-to-face interaction with a form of communication where body language and other signals cannot be

interpreted.

They also found that those same students almost constantly multi-tasked while studying, watching other media, eating or attending class. This constant activity allows little time for bodies and minds to relax and regenerate, and also results in ‘semi-tasking,’ where people do two or more tasks at the same time — but half as well as they would have if focused on one

task at a time.

Researchers noted that digital addiction is not our fault, but a result of the technology industry's desire to increase corporate profits. Push notifications, vibrations and other alerts on our phones and computers make us feel compelled to look at them by triggering the same neural pathways in our brains that once alerted us to imminent danger, such as an attack by a tiger or other large predator.

“But now we are hijacked by those same mechanisms that once protected us and allowed us to survive — for the most trivial pieces of information,” Peper said. However, just as we can train ourselves to eat less sugar, for example, we can take charge and train ourselves to be less addicted to our phones and computers. The first step is recognizing that tech companies are manipulating our innate biological responses to danger.

Erik Peper suggests turning off push notifications, only responding to email and social media at specific times and scheduling periods with no interruptions to focus on important tasks.

## **1. Umbilical cord banking gets a lot of buzz. Why all the excitement?**

For much of pregnancy, the umbilical cord is the lifeline of a fetus, tethering it to the placenta. Snaking through the nearly 2-feet-long cord, there's a vein ferrying nutrients and oxygen from mom's blood (via the placenta), plus two arteries carrying oxygen- and nutrient-depleted blood from the fetus back to mom. Because mother's blood and fetal blood don't actually mix much, the blood in the placenta and umbilical cord at birth belongs mainly to the fetus. That fetal blood holds all sorts of interesting and potentially therapeutic cells and molecules. This realization has, in some cases, changed the way the umbilical cord and placenta are handled during birth. For more details click on the below link

<https://www.sciencenews.org/blog/growth-curve/umbilical-cord-blood-banking-research>

## **2. Deep learning transforms smartphone microscopes into laboratory-grade devices**

Researchers at the UCLA Samueli School of Engineering have demonstrated that deep learning, a powerful form of artificial intelligence, can discern and enhance microscopic details in photos taken by smartphones. The technique improves the resolution and color details of smartphone images so much that they approach the quality of images from laboratory-grade microscopes..For more details click on the below link

[https://www.eurekalert.org/pub\\_releases/2018-04/uhss-dlt041118.php](https://www.eurekalert.org/pub_releases/2018-04/uhss-dlt041118.php)

## **3. Some Antibiotics Rev Up Host Immune Response to Viruses**

Last week, Paulo Verardi got a paper cut refilling the printer in his office at the University of Connecticut. The virologist started looking through a drawer for some Neosporin, and it got him thinking about what the cream really does. A study he was reading that same day found that treating mice topically with antibiotics in a class known as aminoglycosides—which include neomycin, the antibiotic in Neosporin—helped them fend off infection by some viruses. “This opens our mind to all of these other off-target effects that any drug can have, including antibiotics,” he explains. For more details click on the below link

<https://www.the-scientist.com/?articles.view/articleNo/52245/title/Some-Antibiotics-Rev-Up-Host-Immune-Response-to-Viruses/>

## **4. Nearly one billion people in Africa to be protected against yellow fever by 2026**

The world is facing an increased risk of Yellow fever outbreaks and Africa is particularly vulnerable," said Dr Tedros. "With one injection we can protect a person for life against this dangerous pathogen. This unprecedented commitment by countries will ensure that by 2026 Africa is free of Yellow fever epidemics." For more details click on the below link

<http://www.who.int/mediacentre/news/releases/2018/yellow-fever-africa/en/>



## **E- CAS (Current Awareness Service)**

Monday Morning team

Library & Information Division

ICMR-Regional Medical Research Centre

Bhubaneswar- 751023, ODISHA ,

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