

### **Embassy of India, Berne**

# INDIA SCIENCE AND INNOVATION WEEKLY

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Ask the right questions, and nature will open the door to her secrets
- Dr. C.V. Raman, The Nobel Prize in Physics 1930

### Indian researchers developed a safe and easy procedure to produce antimicrobial agents

Indian researchers from the Indian Institute of Science Education and Research (IISER)-Bhopal, developed a safe and easy procedure to produce silver nanomaterials that can be used as antimicrobial agents. Researcher also infored that Silver, the common ornamental metal, when present as Nano-sized particles one hundred thousand times smaller than the width of a single human hair has good antimicrobial properties. Researchers added that on examining the product under highresolution microscopes, found two forms of silver nanostructures - nanoclusters and nanoparticles and the nanoparticles were found to kill microbes such as S. cerevisiae (associated with pneumonia, peritonitis, UTI etc.), C. albicans (oral and genital infections), and E. coli (stomach infection).

# Govt. approved incentive scheme for promotion Digital Payment

Govt. approved an incentive scheme to promote Digital Payments for promotion of RuPay Debit Cards and low-value BHIM-UPI transactions. Under this scheme Govt. would facilitate acquiring Banks in building robust digital payment ecosystem and promoting RuPay Debit card and BHIM-UPI digital transactions. The scheme would further spur research and development and innovation in fintech space, and would help the Government in further deepening of digital payments in various part of countries.

#### Indian Scientists found new therapy for cancer

Indian scientists & researchers at the Indian Institute of Technology-Indore (IIT Indore), found new therapy for cancer by synthesising a nano-based therapeutic agent which is found to be quite effective in reaching inaccessible sites, overcoming physiological barriers, maintaining the concentration of drugs, and reducing cellular toxicity and therefore promises to be highly effective in treating cancer. Researcher further added that one of the major advantages of using nanocarriers for the delivery of Piperine is that this can target the MDR cancer cells by releasing the cargo inside the cytosol mediated by the proton sponge effect.

## DRDO successfully tested the Supersonic Missile Assisted Torpedo System

Defence Research and Development Organisation (DRDO) successfully tested its indeginously developed Supersonic Missile Assisted Torpedo System from Wheeler Island in Odisha and the trajectory was monitored by the electro optic telemetry system, including the down range instrumentation. DRDO commented that the system has been designed to enhance anti-submarine warfare capability far beyond the conventional range of the torpedo.

### Special Update: Ministry of Civil Aviation to address CO2 emissions

To address CO2 emissions & towards the implementation of Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) in India, the Ministry of Civil Aviation adopted the following measures:

- i. Directorate General of Civil Aviation (DGCA) issued Civil Aviation Requirements on "CORSIA" and guidance material for airline operators and other stakeholders for better understanding of the design elements of CORSIA, after consultation with the stakeholders.
- ii. DGCA with International Air Transport Association (IATA) and European Union Aviation Safety Agency (EASA) has carried out various workshops and seminars/trainings for the industry to sensitize them on CORSIA requirements.
- iii. DGCA worked in closed coordination with National Accreditation Board for Certification Bodies (NABCB) to empanel two verification bodies to carry out verification activities on CORSIA for the airlines.
- iv. For Indian Operators, the CORSIA offsetting requirements would be applicable from 2027 viz. from Mandatory (Second) phaseof the CORSIA implementation.