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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

India's Gaganyaan mission

India's first manned mission to space - will be tested in the wind tunnel facility at National Aerospace Laboratories (NAL) in Bangalore, a laboratory of Council of Scientific and Industrial Research (CSIR). The crewed launch will be by end of 2021.

Genome of Indian cobra sequenced

A consortium of scientists, including from India, have mapped the genome of the Indian Cobra, among the most poisonous snakes in the country. The scientists at SciGenome Research Foundation in Bengaluru have found 19 specific toxic genes from 14 different cobra tissues, which should lead to a safe and effective anti-venom for treating cobra bites.

IIT-Madras design room sodium-sulphate batteries

While operating a conventional sodium sulphate battery, IIT-Madras researchers achieved almost twice the storage capacity of 1,034 mAh by charging the electrolyte used. The researchers used a glass fiber separator soaked in ether-based electrolyte in place of a solid electrolyte that allows battery to be operated at room temperature. The researchers added a shielding layer made of white graphite mixed in polymer matrix to prevent net loss in cathode sulphur, which happens due to the dissolution of polysulphides into the electrolyte and when they move towards the anode.

Serums institute's indigenously developed pneumococcal vaccine

Pune-based Serum Institute of India has developed a pneumococcal vaccine that has been pre-qualified by the World Health Organisation (WHO). The vaccine will be made available to low- and middle-income countries for just USD 2 a dose and 30% cheaper than the price set by Global Alliance for Vaccines and Immunizations (GAVI).

CSIR-IMTECH & Merck open a High-tech Skill Development Centre

In a first-of-its-kind public-private partnership, CSIR-Institute of Microbial Technology (IMTECH) in collaboration with Merck inaugurated the High-Tech Skill Development Centre in the area of life sciences. This academia-industry-led, High-Tech Skill Development Centre in Chandigarh has been established to augment Government of India's initiative for "Skill India" and increase employability opportunities for students in the country. The centre established in IMTECH and spread across 1500 sq.ft would focus on research, development and training in the areas of drug discovery, affordable healthcare, diagnostics, cancer and agriculture biotechnology.

Merck Young Scientist Award 2019

Indian researchers have received first Merck Young Scientist Award 2019 in Chemical Sciences recently at Bangalore instituted by Merck, a science and technology company operating worldwide. Merck Young Scientist Award is given to researchers with less than ten years of experience with expertise in solving some of the toughest problems in chemical sciences. Dr Sakya Singha Sen, a senior scientist from National Chemical Laboratory (CSIR-NCL), Pune has been awarded for doing remarkable research in chemical science. Dr. Sen and his research team specialize in main group chemistry and in the synthesis of compounds with main group element and their catalytic application.

EV charging startup EVI Technologies is investing big

Delhi-based electric vehicle charging infrastructure provider EVI Technologies plans to invest around Rs 100 crore in the next 18-months, aiming 20,000 charging stations across the country. These chargers can be installed at customer home once they pay the subsidy part of the total amount, while the remaining will be invested by the company. As per the recent policy announcement, there is a subsidy of Rs 6000 on each charger going up to Rs 30,000 based on the quantity of chargers. The company has inked pacts with several discoms for setting up battery swapping and charging stations, along with the operation and maintenance. Under its recent partnership with BSNL, the company plans to set up charging infrastructure in 5,000 locations across the country. The first set of charging stations under the initiative are planned to open next month in Maharashtra and Haryana. It has already installed 203 public chargers across the country till date.

Special Update: Atal Bhujal Yojana

On 25 December 2019, the birth anniversary of former Prime Minister Atal Bihari Vajpayee, the Atal Bhujal Yojana (ATAL JAL) was launched, with the principal objective of strengthening the institutional framework for participatory groundwater management and bringing about behavioral changes at the community level for sustainable groundwater resource management in seven States, viz. Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh.

A total of Rs. 600 billion is to be invested over a period of 5 years (2020-21 to 2024-25) in the programme. This programme reflects the proactive attitude towards the growing crisis of groundwater supply, impacting both agriculture and industrial sectors.