



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*

## IIT Kanpur Scientist developed biodegradable, non-immunogenic wound dressing material based on Seaweed Agar

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Scientist at IIT Kanpur has developed a biodegradable, non-immunogenic wound dressing material which is based on agarose, a natural polymer derived from seaweed agar, for the treatment of infected diabetic wounds and patients suffering from chronic wounds. The biodegradable, non-immunogenic wound dressing material was developed by adding several additive molecules like iodine and citric acid & may be used as a single layer, bilayer, or multi-layered hydrogel films depending on the severity and type of wound. The research bagged a National patent and has been validated and tested in-vitro and in-vivo on rat model was supported by the Advanced Manufacturing Technologies programme of the Department of Science & Technology (DST), GoI, and is aligned with the 'Make in India' initiative.

## IIT Madras & IISER Kolkata developed method to detect minute quantities of chemicals in solution

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Researchers at IIT Madras & Indian Institute of Science Education and Research (IISER) Kolkata have developed a method to detect minute quantities of chemicals in solution and this technique exploits the quantum emission properties of erbium-doped nanoparticles. Researchers at IIT Madras & IISER Kolkata has confirmed that in principle with this technique, they can, illuminate the insides of cells.

## DBT - BIRAC approved First Nasal Covid-19 Vaccine developed by Bharat Biotech

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Department of Biotechnology (DBT) GoI, & Biotechnology Industry Research Assistance Council (BIRAC) approved the First Covid-19 intranasal vaccine of Bharat Biotech for Phase 2 trials. Bharat Biotech received the regulatory approval for conducting "A Phase 2 randomized, multi-centric, Clinical Trial of Heterologous Prime-Boost Combination of SARS-CoV-2 Vaccines to evaluate the immunogenicity and safety of BBV152 (COVAXIN®) with BBV154 (Adenoviral Intranasal COVID-19 vaccine) in Healthy Volunteers." DBT confirmed that "the Department through Mission COVID Suraksha, is committed to development of safe and efficacious COVID-19 vaccines in the country.

## BeST - BCII MoU: Move to strengthen technology development ecosystem in Karnataka

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Bengaluru S&T (BeST) cluster & Bangalore Chamber of Industry and Commerce (BCIC) signed an MoU to strengthen & to set up a robust and vibrant innovation-driven technology development ecosystem in Karnataka. BeST is one of several national science and technology clusters being established in the country, to ensure better synergy between academic institutions, national and state research laboratories, and other stakeholders like relevant ministries, industry partners, start-ups, MSMEs, state governments. BeST is an initiative of the Prime Minister's Science, Technology & Innovation Advisory Council (PM-STIAC) launched with support from the Office of the Principal Scientific Adviser (PSA) to the Government of India, to enable R&D of key national missions and solve problems for the Indian and global industry.

## Special Update: IPR: Key Achievements

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During National Intellectual Property Awards 2020, Minister of Commerce and Industry, Consumer Affairs & Food & Public Distribution and Textiles emphasised that India should aim to become the "Design hub of World" and powered by Intellectual Property, India can be the Innovation Powerhouse of the world. IPR is the key for success of Start-up India, Make in India & Design in India. India's Key Achievements in Intellectual Property Rights (IPR) were also highlighted, which are as follows:

- India records 572% growth in grant of Patents in last 7 years
- India granted 28,391 Patents in 2020-21 as compared to 4,227 grants during 2013-14
- 14.2 lakh trademark registrations done in 4 years (2016-2020) in comparison to 11 lakh during 75 years (1940-2015)
- India's ranking in Global Innovation Index jumps to 48th in 2020, (+33ranks from 81st in 2015-16)
- Reduction in Time of patent examination from 72 months in Dec 2016 to 12-24 months in Dec 2020