

No. DSIR/MS/2021/09
Government of India
Ministry of Science & Technology
Department of Scientific & Industrial Research
MONTHLY SUMMARY FOR THE CABINET
(For the month of **September, 2021**)
(Part-I Unclassified)

Major achievements during the month of September, 2021:

Council of Scientific & Industrial Research (CSIR)

80th CSIR Foundation Day

- On 26th September, 2021 CSIR celebrated its 80th Foundation Day. Shri Venkaiah Naidu, Honourable Vice President of India, as the Chief Guest. Dr Jitendra Singh, Hon'ble Minister of Science and Technology, presided over the event. On the occasion, various CSIR Awards were announced. The Hon'ble Vice President presented several prestigious awards, such as the CSIR Young Scientists Award, CSIR Innovation Award for School Children, G N Ramachandran Medal of Excellence for Biological Sciences, CSIR Technology Award, etc. The year's coveted Shanti Swarup Bhatnagar Prize Winners were also announced.

New Technologies/Processes Developed/Transferred

- CSIR-IHBT introduced Dalchini (*Cinnamomum verum*) for the first time in H.P. at Village Kholin, Distt. Una. This was a step towards its organized cultivation and making India Aatamnirbhar in its production. This project is being implemented in association with ICAR-Indian Institute of Spice Research and Dept. of Agriculture, H.P.
- CSIR-CFTRI:
 - Process for flavour essence from *Decalepis* - M/s Lalitha Gardens, Bellary, Karnataka.
 - Plant growth promoter containing n-triacontanol - M/s Linga Chemicals, Musheerabad, Hyderabad.
- CSIR-CSIO:
 - 'Standalone UV Air Disinfection System for Rooms and Spaces' technology transferred to M/s TICEON LLP and QNEEDS Auto
 - 'UV Disinfectant retro-fit systems for HVAC Ducts' to MG Cooling Solutions, Delhi.
- CSIR-IICT licensed the Patent "Uttroside saponin based Immune-adjuvant / potentiator composition and process for preparation thereof" (patent application number IN201811042595) to Bharat Biotech International Limited, Hyderabad.

Conferences, Seminars/Webinars organized

- CSIR-CCMB: Webinar Series CCMB Biologue: 'Using Lipid Exchange to Understand Membrane Organization and Function' Dr Erwin London, Stony Brook University on 16th September 2021.
- On 29-09-2021, CSIR-CDRI organized One Day International Workshop on 'Contribution from Synthetic Organic Chemistry/ Medicinal Chemistry to Biomedical Sciences'.

Collaborations/Agreements/MoUs Signed (National)

- CSIR-CCMB signed MoUs with Pune Knowledge Cluster (PKC) IUCAA, CSIR-NCL and IISER-Pune on Consortium of R&D research and clinical institutions to advance pathogen genomics to track SARS-CoV-2 Variants and accelerate bioinformatics and global data sharing as a part of philanthropic financial support from the Rockefeller foundation for the project "COVID-19" .
- CSIR-CCMB signed an MoU with State of Andhra Pradesh, through the Health, Medical And Family Welfare Department (Satellite) Andhra Pradesh on Collaborating to establishing a Satellite Centre of SBI Foundation Centre of Excellence for genomics guided pandemic prevention in partnership with CSIR-CCMB in the state of Andhra Pradesh.
- CSIR-CCMB signed an agreement with the Department of Health and Family Welfare, Government of Meghalaya (Satellite) for Collaborating to establishing a Satellite Centre of SBI Foundation Centre of Excellence for genomics guided pandemic prevention in partnership with CSIR-CCMB in the state of Meghalaya .
- A tripartite agreement between Apollo Hospitals Enterprise Limited, Indra Chemical Manufacturing Private Limited and CSIR-CCMB signed. CSIR-CCMB and Apollo are collaborating to develop and commercialize COVID test kits based on DArRT-PCR technology, developed and owned by CSIR-CCMB; whereas Indra Chemical Manufacturing Company shall manufacture the DArRT-PCR test kits.
- CSIR-CECRI signed an MoU with Tunga Aerospace Industries Pvt Ltd., Chennai on Indigenous development of lithium ion battery for submarine application.
- A MoU signed between CSIR-CFTRI and Ministry of Rural Development (MoRD) in the presence of the Union Minister for Rural Development & Panchayati Raj.
- CSIR-CIMFR signed the following agreements:
 - Tripartite Agreement among CSIR-CIMFR, Dhanbad; SECL Bhawan, Seepat Road, Bilaspur, Chhattisgarh and M/s. Jindal Power Limited, Raigarh, Chhattisgarh on 10-09-2021.
 - Tripartite Agreement among CSIR-CIMFR, Dhanbad; Mahanadi Coalfields Limited, Sambalpur, Odisha and M/s. Adani Electricity Mumbai Limited, Adani, Ahmedabad on 14-09-2021.

- Tripartite Agreement between CSIR-CIMFR, Dhanbad; Mahanadi Coalfields Limited, Sambalpur, Odisha and R.K.M Powergen Private Limited, Chennai on 21-09-2021."
- MoU between CSIR - National Institute of Oceanography (CSIR-NIO), Goa-India & Geological Survey of India (GSI), Marine and Coastal Survey Division (MCSD), Mangalore was signed on 22 September 2021. The purpose of this MoU is for collaborative work on special processing techniques like AVO and streamer tomography on seismic data already acquired by MCSD/GSI and its interpretation around the Andaman-Nicobar subduction zone and backarc basin in the East Bay of Bengal and the Andaman Sea utilizing the resources of both the parties.
- CSIR-IIIM signed an MoU with Nutoday Pvt Ltd, Bangalore on 30-09-2021 to strategies research and commercialization aspects in the field of nutraceuticals.
- CSIR-IHBT signed an MoU to install distillation unit at Kalimpong, West Bengal as per technical know-how and guidelines of CSIR-IHBT with a society Mani Trust, Kalimpong (WB) on 06.09.2021

Collaborations/Agreements/MoUs Signed (International)

- CSIR-CCMB and EMD MILLIPORE CORPORATION, USA signed a Technology License Agreement for commercialization of "RapGEF1(C3G) 3F6" monoclonal antibodies.
- CSIR-CECRI and Stanwix Forbes LLC, USA signed an agreement on Development of Technology for enhancing the efficiency of breath samplers.

Patents Update:

Patents Filed		Patents Granted		Patent Prosecutions	
India	Abroad*	India	Abroad*	Indian	Foreign
14	15	12	10	31	44

*Data reported to IPU during the said period and may increase later during national phase entries

High impact S&T services offered

- CSIR-CCMB tested 157 families comprising of 161 samples tested for Molecular Diagnostics Services. With regard to Genome surveillance ~850 samples genomes sequenced.

Outreach Activities (Jigyasa, Skill Development, and others)

- CSIR-CCMB held sessions with high school, undergraduate students, and teachers on "How can Indians prevent genetic diseases (8th Sept)" and "How can we protect the Deccan ecosystem (17th Sept)". CSIR-CCMB also conducted 2-week Faculty Development Program on "Basic Techniques in Genetics & Molecular Biology" from 13-24 September
- CSIR-CDRI organized an Advance Course on "Care, Management of Laboratory Animals & Experimental Techniques" from 06-09-2021 to 24-09-2021.

- Under the JIGYASA program, CSIR-CECRI organized various programmes
- CSIR-CFTRI organized a Workshop on Innovative & Healthy Snacks on Sept. 28-29, 2021 as a part of the CSIR Integrated Skill Initiative
- CSIR-CGCRI organized a JIGYASA webinar on 10-9-2021 on the "The Fascinating Cosmos" delivered, Director, Research & Academic, MP Birla Institute of Fundamental Research, MP Birla Planetarium, Kolkata.
- CSIR-CIMFR organized 2-Days Workshop on DIY ELECTRONICS during 02-03 September, 2021 under CSIR-JIGYASA Student-Scientist Connect Programme.
- CSIR-CRRI organized a talk on "Good Road Health for Wealth" to foster curiosity and innovation in young minds on September 12, 2021 under JIGAYSA
- CSIR-CSIO under CSIR Integrated Skill Initiative Programme, on 15th September, 2021, organized a workshop on "Injection Moulding Technologies" and CSIR-IICT organized a "Certificate course in Bioinformatics and Cheminformatics" from 13th Sept 2021 to 24th Sept 2021.
- CSIR-IHBT conducted several skill development programmes. Some of them are:
 - Five-day capacity building program for Agriculture Officers on high value crops like saffron and heeng from Sept 20-24, 2021.
 - Awareness programme on "Organic waste management and avenues of rural entrepreneurship through improvisation of the traditional practices of night soil composting in dry toilets"
 - Distribution of compost booster cum awareness programme on "Improvisation of the traditional practices of night soil composting in dry toilets (chaksa)" at Leh, Union Territory of Ladakh on 08.09.2021.

Events held to mark India@75 or Azadi Ki Amrit Mahotsav / 75 Years of Indian Independence

Numerous events were held across the CSIR laboratories to celebrate The Azadi ka Amrit Mahotsav. A summary of celebrations is given below:

Event	Date	Lab
Webinar on DNA Fingerprinting Technology - Its Success & Future		CSIR-CCMB
Fit India Freedom Run 2.0	26-09-2021,	CSIR-CDRI, CSIR-CRRI
Webinar on Coating Technology to Mitigate Corrosion of Rebars in Concrete	30-09-2021	CSIR CECRI

Structures		
Webinar on Millet Processing and Value Addition Avenues	07-09-2021	CSIR-CFTRI
Talk on Bioresources and its role in Entrepreneurship	09-09-2021	CSIR-CGCRI
Programme on “Avenues for livelihood options and rural entrepreneurship through improvisation of the traditional practices of night soil composting in dry toilets”	22-09-2021	CSIR-IHBT

Visit of high level dignitaries to the Institute/Laboratory

- On the occasion of the 80th Foundation Day of CSIR, Shri Venkaiah Naidu, Hon'ble Vice President of India was the Chief Guest. Dr. Jitendra Singh, Hon'ble Minister of Science and Technology presided over the function.
- CSIR-CCMB: High-level “Colombian Health Mission in India” delegation headed by the Minister of Health of Colombia and HE Ambassador Mariana Pacheco visited CCMB on 29th of September 2021.
- CSIR-CFTRI: Shri Giriraj Singh, Hon'ble Union Minister for Rural Development & Panchayati Raj (MoRD) on Sept. 24, 2021;
- CSIR-IIIM: One-day workshop on CSIR initiatives for Science & Technology led development in the Union Territory of Jammu & Kashmir under the aegis of Council of Scientific and Industrial Research (CSIR) and J&K Science & Technology Department was held on 19th September at Sher-e-Kashmir International Convention Centre. Dr Jitendra Singh, Hon'ble Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space inaugurated the workshop while as distinguished scientists, academicians and bureaucrats, faculties of various Colleges and Universities from across Union Territory of J&K have attended this workshop.

COVID related developments

- CSIR-CCMB: COVID Research Team Publication: Singh et al., Host transcriptional response to SARS-CoV-2 Infection in COVID-19 patients; *Clinical and Translational Medicine*, 2021

- CSIR-CDRI: CDRI successfully completed phase III clinical trial of Umifenovir in Covid-19 treatment
- CSIR-IHBT: Continued the activity of testing of COVID-19 samples from Kangra district of Himachal Pradesh. Samples were provided to NCDC, New Delhi for whole genomic sequencing.

DEPARTMENTAL ACTIVITIES

DSIR's mandate is to promote Industrial Research and Development besides technology promotion, development and utilization. In order to promote and nurture Research and Development in the country, Industrial R&D Promotion Programme of the department gives recognition and registration to in-house R&D units of industries, not for profit Scientific and Industrial Research Organizations (SIROs), Public Funded Research Institutions (PFRIs) and periodically renews these recognition / registration under the respective Government Notifications (as amended from time to time), by virtue of which these organizations are able to obtain Customs duty exemptions, Goods & Service Tax (GST) concessions and Weighted tax deductions on R&D by Industry (under section 35(2AB) of IT Act). This scheme helps in encouraging industrial R&D in the country.

Industrial R&D Promotion Programme

Recognition/ Registration and renewal of In-house R&D in Industry

- 33 in-house R&D units of industries were granted recognition as well as registration certificates.
- 105 in-house R&D units of industries were granted renewal of recognition as well as renewal of registration certificates.

Scientific and Industrial Research Organisation (SIROs)

Recognition/ Registration and renewal of SIROs

- 12 SIROs were granted recognition and 07 were granted registration certificates.

Public Funded Research Institution (PFRIs)

Registration and Renewal of PFRIs

- 47 PFRIs were granted renewal of registration certificates.

Fiscal Incentives for R&D by Industry

- 83 reports in form 3CL submitted to CCIT under Section 35(2AB) of IT Act for weighted tax deduction on industrial R&D involving a total amount of Rs. 337275.05 lakhs.

Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM) :

Successfully completed the following five projects

- Novel Silicon Nipple to prevent early childhood caries (dental decay).
- Modeling and fabrication of security gadget for Tirumala Pilgrims.
- Trash Skimmer for Namami Gange (JALMITRA).
- Automized High Precision Crystal Growth Puller System.
- Light Weight Portable Folding Stool.

PUBLIC SECTOR ENTERPRISES

Central Electronics Limited (CEL)

CEL is an enterprise under DSIR having an objective to commercially exploit the indigenous technologies developed by National Labs and R&D institutions in the country. CEL has developed a number of products for the first time in the country through its own R&D efforts and it continues to emphasize its leading role in the area of solar photovoltaic systems, electronic gadgets for Railway and other strategic electronic equipment/components among others.

- The company manufactured electronic components/systems/SPV products worth Rs. 2225.49 Lakhs during September, 2021.
- Sale of items worth Rs.1881.73 Lakhs was realized during September, 2021.

National Research Development Corporation (NRDC)

NRDC continues to lay emphasis on broadening and strengthening the technology resource base by nurturing long term relationships with R&D institutions as well as universities, technical organizations, industries and also individual inventors.

- NRDC has licensed technology to manufacture Ayush-64 (an ayurvedic drug which has been repurposed for use against mild to moderate cases of covid-19) to ten companies. NRDC has been assigned 3 technologies by IIT, Ropar and 2 technologies by NIOT, Chennai during September, 2021
- NRDC has collected premia of Rs.42.00 Lakhs and royalty of Rs.1.62 Lakhs from respective technologies during September, 2021.
