No. DSIR/MS/2018/03

Government of India Ministry of Science & Technology Department of Scientific & Industrial Research MONTHLY SUMMARY FOR THE CABINET (For the month of **March 2018**) (Part-I Unclassified)

<u>Ministry / Department</u>: Department of Scientific and Industrial Research (DSIR)

MAJOR ACHIEVEMENTS DURING THE MONTH OF MARCH, 2018:

DEPARTMENTAL ACTIVITIES

- 1. Industrial R&D Promotion Programme Recognition/ Registration and renewal of In-house R&D in Industry
 - 16 in-house R&D units of industries were granted recognition as well as registration certificates.

Scientific and Industrial Research Organization (SIROs) Recognition/ Registration and Renewal of SIROs

- 01 SIRO was granted recognition as well as registration certificate.
- 99 SIROs were granted renewal of recognition and 52 were granted renewal of registration certificates.

Public Funded Research Institution (PFRIs) Registration and Renewal of PFRIs

• 08 PFRI were granted renewal of registration.

Fiscal Incentives for Scientific Research

- 12 industries were approved for issuance of form 3 CM under Section 35(2AB) of IT Act under weighted tax deduction.
- 62 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.84539.44 lakhs.

AUTONOMOUS BODIES

1. Council of Scientific & Industrial Research (CSIR)

1.1 CSIR-CECRI and CSIR-CSMCRI : Super Capacitor Built From Discarded Lithium Ion Batteries

CSIR-CECRI, Karaikudi and CSIR-CSMCRI, Bhavnagar prepared graphene oxide from discarded lithium ion batteries. This new material showed high specific capacity at low current making it an ideal material for next generation high-performance super capacitor. The new electrode made using graphene oxide showed high stability even after 20,000 cycles.

1.2 CSIR-NIO: Cold Seeps Discovered In Krishna Godavari (KG) Basin

CSIR-NIO, Goa discovered `active cold seeps' in the Krishna Godavari (KG) basin which are associated with shallow methane hydrates using its research vessel Sindhu Sadhana. These seeps are located in the country's Exclusive Economic Zone (EEZ). There are approximately 1900 trillion cubic meters of methane gas hydrates in the Indian EEZ which is considered as alternative hydrocarbon energy reserve.

1.3 CSIR-CDRI : Launched a Nutraceutical to Prevent Osteoarthritis

CSIR-CDRI, Lucknow has launched a nutraceutical with a special dietary ingredient from palak (spinach) to prevent osteoarthritis. It has been launched with M/s Pharmanza Herbals Pvt. Ltd., Gujarat along with its marketing partner namely, Aeran Lab (India) Pvt. Ltd., Thane. This nutraceutical has extra health benefits for osteoarthritic joints in addition to the basic nutritional value found in *Spinacea oleracea* (Palak). It has zero toxicity and is effective at lower doses, even at nano formulation.

1.4 CSIR Intellectual Property

Patents Filed		Patents Granted	
India	Abroad	India	Abroad
6	18	20	09

1.5 Honors & Awards

Prof. Nahid Ali, CSIR-IICB has won National Women Bio scientist Award on International Women's Day.

1.6 Significant Events

(a) Conferences, Workshops Organized

- (i) CSIR-CMERI, Durgapur has conducted an Indo-Australian Workshop on `Advances in Materials and Additive Manufacturing (AM2) at IIT Madras. CSIR-CMERI, Durgapur also organised a workshop on `Emerging Technologies on Water Purification for rural application'.
- (ii) CSIR-IIIM, Jammu has organized a national workshop on `CSIR Aroma Mission: Value addition of high value aroma ingredients for socio economic and rural prosperity'.
- (iii) CSIR-IIP, Dehradun and Indian Society of Analytical Scientist has jointly organised three days' international conference on 'Advances in Analytical Sciences (ICAAS-2018)'.
- (iv) CSIR-NML, Jamshedpur has organized two days training programmer on `Energy efficient Brass melting furnace for production of Brass artifacts.'

(b) Agreements/Memorandum of Understanding Signed

(i) CSIR has signed an MoU with Regional Centre for Science and Technology Transfer (RCSTT) of Indian Ocean Rim Association (IORA) for designating CSIR-CIMAP, Lucknow as coordinating Center for Medicinal Plants.

- (ii) CSIR-IGIB entered into an agreement with Dr. Lal Path Labs, one of the largest diagnostic centre in the country, top transfer unique DNA based technology GOMED (Genomics and other Omics technologies for Enabling Medical Decision) to enable diagnosis of close to 30 genetic diseases. These tests cover a variety of disease/disorders such as movement disorders, motor neuron disease and Inborn error of metabolism among others. With seven crore Indians affected by genetic diseases and diagnostic tests being exorbitant, the cost will come down to half and result time will also reduce with this indigenous technology.
- (iii) CSIR-NCL, Pune and DST, Delhi has signed an agreement with M/s. Lupin Pharmaceuticals for conducting research on a continuous purification process development of bio-similar monoclonal antibody therapeutic (mAb).
- (iv) CSIR-NEERI, Nagpur has signed on MoU with Punjab Government for providing technical support in solid waste management and sewage treatment at Amritsar.
- (v) CSIR-NPL, New Delhi has organized a one-day seminar on `Roadmap for the production & certification of Certified Reference Materials in India.

PUBLIC SECTOR ENTERPRISES

1. National Research Development Corporation (NRDC)

• NRDC collected a royalty of Rs. 230.24 Lakh during March, 2018 on account of commercialization of technologies assigned to NRDC by public funded research organizations and others.

2. Central Electronics Limited (CEL)

 Central Electronics Limited continued its activities in the area of solar photovoltaic systems, electronic gadgets for Railway and other electronic equipment/components etc. The company has manufactured electronic components/systems/ SPV products worth Rs.4099.09 Lakhs and realized sale of such items worth Rs. 5220.30 Lakhs during March, 2018. It repaid Rs.11.30 Cr of Government loans to clear all outstanding principal amount as on date. CEL received Skoch award (Evergreen Gold) for development of innovative Solar applications.
