

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH**

**LOK SABHA
UNSTARRED QUESTION NO. 1134
(TO BE ANSWERED ON 28.06.2019)**

CENTRAL DRUG RESEARCH INSTITUTE

1134. SHRI NARANBHAI KACHHADIYA :

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) the number of Central Drug Research Institutes in the country, State/ UT-wise;**
- (b) the funds sanctioned, allocated and utilized during each of the last three years and the current year, institute-wise;**
- (c) whether the Government has set any target for these institutes for the development of modern medicines and if so, the details thereof;**
- (d) whether any agreement has been signed with other countries for said institutes; and**
- (e) the steps taken or being taken by the Government for improving the performance of the said institutes?**

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF HEALTH AND FAMILY WELFARE
(ASHWINI KUMAR CHOUBEY)**

- (a) Only one Central Drug Research Institute (CSIR-CDRI) which is situated in Lucknow, Uttar Pradesh.**
- (b) The funds sanctioned, allocated and utilized during each of the last three years and the current year by CSIR-CDRI are as below:**

(Rs. In crore)

Year	2016-17 (allocated and utilized)	2017-18 (allocated and utilized)	2018-19 (allocated and utilized)	2019-20 (Initial allocation)
Total Budget	153.57	179.98	148.18	47.76

(c) R&D activities of CSIR-CDRI are for:

- **Development of new drugs and diagnostics;**
- **Cellular and molecular studies to understand disease processes and reproductive physiology;**
- **Development of contraceptive agents and devices;**
- **Systematic evaluation of medicinal properties of natural products;**
- **Development of technology for drugs, intermediates and biologicals;**
- **Dissemination of information in the field of drug research, development and production; and**
- **Development of technical manpower.**

Thrust Areas include:

- **Malaria and other Parasitic Diseases;**
- **Bone Health and Metabolic Bone Diseases;**
- **Antimicrobial Resistance;**
- **CVS, CNS, Cancer & Reproductive Health; and**
- **Pre-clinical Studies & Translation.**

The achievements of the institute in terms of Measurable Parameters like paper publications, patents, ECF generated, Product launched for marketing and Technology licensed to Industry during last three years is attached as annexure-I.

(d) CSIR-CDRI has signed project specific agreements with some Institutes and organizations in foreign countries. List of agreements during last three years is at annexure-II.

(e) Steps taken or being taken by the Government for improving the performance of CSIR-CDRI are placed at annexure-III.

CSIR- Central Drug Research Institute, Lucknow

A. Information on Measurable Parameters during last three years

Measurable Parameters during last three years		
1.	No. of paper published	994
2.	Patents <ul style="list-style-type: none"> • Patents filed in India • Patents Granted in India • Patents filed abroad • Patents Granted Abroad 	12 28 26 25
3.	ECF Generated	₹ 46.10 Crore
4.	Ph.Ds	260
5.	HR trained (post graduate level training)	407

B. Product launched for marketing:

- a) **Dietary Supplement “Joint Fresh”:** A standardized formulation for the management of osteoarthritis from CDR2492/C003 was launched on 13 March 2018. The product is available in Indian market.
- b) **Reunion:** A Standardized Extract of *Dalbergia sissoo* for accelerated fracture healing & management of post-menopausal osteoporosis was launched for marketing on 17 February 2016. The product is available in Indian market.

C. Technology licensed to Industry:

1. CSIR-CDRI plant product N-012-0001 for the early management of Benign Prostatic Hyperplasia (BPH) licensed to Lumen Marketing Company, Chennai on 17-02-2019
2. CSIR-CDRI bioactive extract and formulation of 219-C002 from the terrestrial plant *Cassia occidentalis* licensed to Pharmanza Herbal Pvt. Ltd., Gujarat on 17-02-2018
3. CDRI product **CDR2492/C003 – a standardized formulation for the management of osteoarthritis** licensed to Pharmanza Herbal Pvt. Ltd., Gujarat on 31-07-2017
4. Development of Bone anabolic agent CDRI compound S008-399 licensed to Ortho Regenics Pvt. Ltd., Hyderabad on 15-02-2017
5. CSIR-CDRI Plant Extract A-4744 licensed to Pharmanza Herbal Pvt. Ltd., Gujarat on 10-04-2015

Annexure-II

CSIR-CDRI has signed project specific agreements with some Institutes and organizations in foreign countries. List of agreements during last three years

Sl. No.	Project Title	Industry / Institution	Nature of Agreement	Date of signing
1.	A Global Network for Neglected Tropical Diseases	University of Durham, The Palatine Centre, Stockton Road, DH1 3LE, UK	Consortium Agreement	6-07-2018
2.	To investigate the role of lipid droplets (LDs) by Fluoranthene derivatives in dendritic- and myeloid cells	Radboud university medical center, Netherland	Memorandum of Understanding	20-04-2017
3.	To develop a new generation redox based compounds through modulation of the inflammatory processes, which will provide effective lead compounds for use in cancer prevention and treatment, infectious and cardiovascular disease and use of complimentary reagent chemical libraries in CSIR-CDRI to identify and develop multifunctional agents to provide the next generation of treatment	National Cancer Institute, USA	Collaboration Agreement	17-04-2017
4.	<i>In vitro</i> Screening of ARP compounds	Advance Research Products, LLC, 608, 21 st Avenue, Paterson, NJ 07513, USA	Sponsored Project Agreement	24-05-2016
5.	To investigate whether Lipocalin 2 (in mice) NGAL9 (in human) is a part of DNA decoration along with MPO, elastase etc in neutrophil extracellular traps (NETs)	Pennsylvania State University, University Park, USA	Memorandum of Understanding	03-02-2016

Steps taken or being taken by the Government for improving the performance of CSIR-CDRI.

CSIR-CDRI is a unique R&D Institution in the country with state-of-the-art infrastructure for New Drug Discovery and Development from 'Concept to Commercialization'. It is poised to become a global leader through cutting edge science & technology. It is positioned to meet the expectations of unmet medical need as well as expectations of the Industry.

Institute leveraged the new knowledge generated and further strengthen the identified capabilities to meet the newer challenges in healthcare and global positioning. Considering the new trends and technological advancements, to meet the national and international standards, Institute is continuously upgrading its facilities. During last three years and in the current year, following major initiatives have been taken to improve the performance of the Institute:

- NGCMA Accredited GLP Test Facility for Safety Pharmacology and Toxicity studies. CSIR-CDRI is the only Government Sector Institute to have GLP test facility for Safety Pharmacology.
- Institute has received budgetary support from Department of Scientific and Industrial Research for setting up of BA-BE & Drug Testing Facility for Ensuring affordable and quality pharmaceuticals. It will be a full-fledged service entity to be mentored by CSIR-CDRI
- With an aim to create a skilled workforce matching global standards for pharma sector Institute has initiated following Skill Development programs: (i) Advanced Spectroscopic (NMR, MASS, UV/IR) techniques; (ii) Microscopy (Electron Microscopy, Confocal and Intra vital Microscopy) and Flow Cytometry; (iii) Regulatory Safety studies and Animal experimentation and (iv) Computational Approaches to Drug Design & Development.
- The Departmental-related Parliamentary Standing Committee on Science & Technology, Environment & Forests visited our Institute on 3 December 2018 under the Chairmanship of Hon. Shri Prasanna Acharya, Member of Parliament, Rajya Sabha. Committee complemented the accomplishments of Institute in its long journey of more than 6 decades in making the healthcare affordable in India. Committee desired that Institute shall take up research activities in the area of viral diseases as nation is frequently facing the viral epidemics. CSIR-CDRI has already taken up the initiative to venture into newer and most relevant disease areas including viral infections, ageing biology and neurobiology envisioning the healthcare challenges for India 20 years from now.
- Scientific lectures, seminars, symposia are powerful tools for inculcating the academic culture to give impetus to the research activities. With an aim to create a platform for scientific discussions, during the year, Popular Health Talk series, Nobel Symposium, Scientific Lecture series and Faculty Colloquium series were initiated.
