

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION No. 2208
ANSWERED ON 04.08.2022

FACILITIES FOR RESEARCH AND DEVELOPMENT

2208. SHRI S. SELVAGANABATHY:

Will the Minister of Science and Technology be pleased to state:

- (a) the details of the funds allocated for Research and Development and utilised in the last five years, institution-wise;
- (b) the number of innovations recorded during the last five years, year-wise and field-wise; and
- (c) whether the research institutions in the country are unable to provide adequate facilities and competent faculty to train young brains to undertake innovations in the fields of science and technology?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) OF THE
MINISTRY OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES
(DR. JITENDRA SINGH)

- (a) The funds allocated for Research and Development and utilized by Research and Development Institutions under Ministry of Science and Technology, during the last five years, year-wise and institution-wise are annexed as Annexure-I.
- (b) The patents filed in the Office of the Controller General of Patents, Designs & Trade marks (CGPDTM) also indicate the innovations recorded by scientists through Research and Development. Accordingly, patents filed and granted during the last five years, year-wise and field-wise are annexed as Annexure-II and Annexure-III respectively.
- (c) No, Sir. Research and Development Institutions under Ministry of Science and Technology are supported adequately by the Government for pursuing R&D activities, building and maintaining the desired R&D infrastructure and national R&D human resource development. In turn, these Institutions provide adequate research facilities and ample opportunities to its young scientists to carry out their scientific innovative work.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF RAJYA SABHA UNSTARRED QUESTION No. 2208 FOR REPLY ON 04.08.2022

(Amount in Cr.)						
S. No.	Name of the Institute/Laboratory/Organization	Allocation/Expenditure in respect of R&D Institution/Laboratories				
		2017-18	2018-19	2019-20	2020-21	2021-22
Part 'A' : Department of Science and Technology (DST)						
1.	Agharkar Research Institute (ARI), Pune	21.00	19.74	21.09	29.50	34.47
2.	Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital	14.73	20.80	24.31	36.35	38.90
3.	Bose Institute (BI), Kolkata	83.54	99.79	117.48	97.42	97.81
4.	BirbalSahni Institute of Palaeosciences (BSIP), Lucknow	33.99	41.29	46.04	53.09	57.25
5.	Centre for Nano and Soft Matter Sciences (CeNS), Bengaluru	10.24	10.55	13.58	13.74	17.55
6.	Indian Association for the Cultivation of Science (IACS), Kolkata	100.25	118.37	116.85	127.63	126.32
7.	Indian Institute of Astrophysics (IIA), Bengaluru	57.97	69.75	69.19	109.35	120.11
8.	Indian Institute of Geomagnetism (IIG), Navi Mumbai	37.70	44.04	49.34	46.21	56.72
9.	Institute of Advanced Study in Science and Technology (IASST), Guwahati	28.86	32.90	35.85	30.80	34.65
10.	Institute of Nano Science and Technology (INST), Mohali	66.26	67.19	107.09	61.89	57.96
11.	International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad	53.27	53.21	52.01	61.16	73.94
12.	Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru	76.42	84.84	109.28	102.67	120.20
13.	Raman Research Institute (RRI), Bengaluru	46.86	48.82	51.88	61.28	62.80

14.	SatyendraNath Bose National Centre for Basic Sciences (SNBNCBS), Kolkata	39.71	34.91	34.39	44.69	47.08
15.	Wadia Institute of Himalayan Geology (WIHG), Dehradun	31.02	23.91	37.10	40.89	60.99
16.	SreeChitraTirunal Institute for Medical Sciences and Technology (SCTIMST), Thiruvananthapuram	205.03	196.75	186.15	310.10	335.01
Sub-Total (DST)		906.85	966.86	1071.63	1226.77	1341.76
Part 'B' : Department of Biotechnology (DBT)						
17.	National Institute for Plant Genome Research, New Delhi	71.75	73.50	82.44	71.55	59.25
18.	Institute of Life Sciences, Bhubaneswar	54.40	61.50	63.00	47.10	52.15
19.	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram	40.20	43.00	49.00	43.50	120.30
20.	National Institute of Biomedical Genomics, Kalyani	42.21	45.00	29.13	27.45	30.75
21.	International Centre for Genetic Engineering and Biotechnology, New Delhi.	38.00	38.00	48.24	31.50	33.50
22.	National Institute of Immunology, New Delhi	25.00	27.44	27.68	12.76	76.89
23.	National Centre for Cell Science, Pune	58.58	53.63	58.02	39.50	48.25
24.	Centre for DNA Finger Printing & Diagnostics, Hyderabad	29.48	41.94	54.50	35.50	46.06
25.	National Brain Research Centre, Gurgaon	75.12	85.24	97.72	91.42	29.25
26.	Institute of Bioresources & Sustainable Development, Imphal	25.50	26.58	30.00	19.75	19.61
27.	Translational Health Science & Technology Faridabad	25.65	33.92	41.20	33.00	42.85
28.	Regional Centre for Biotechnology, Faridabad	31.00	31.48	30.15	15.75	42.00
29.	National Agri-Food Biotechnology Institute, Mohali	82.50	82.07	67.20	38.72	19.18
30.	Institute for Stem Cell Research and Regenerative Medicine, Bengaluru	75.50	53.50	28.08	23.00	39.64

31.	National Institute of Animal Biotechnology, Hyderabad	14.46	12.52	13.17	12.00	28.80
32.	Centre of Innovative and Applied Bioprocessing, Mohali	35.16	38.60	42.00	33.50	8.70
Sub-Total (DBT)		724.51	747.93	761.53	577.00	697.18
Part 'C' : Council of Scientific & Industrial Research (CSIR)						
33.	Council of Scientific & Industrial Research (CSIR)	4582.12	4521.28	4831.58	4101.22	5174.34
Sub-Total (CSIR)		4582.12	4521.28	4831.58	4101.22	5174.34
Total		6213.48	6236.07	6664.74	5904.99	7213.28

ANNEXURE-II

ANNEXURE IN RESPECT OF PATENTS FILED REFERRED TO IN REPLY TO PART (b) OF RAJYA SABHA UNSTARRED QUESTION No. 2208 FOR REPLY ON 04.08.2022

Field of Invention/ Year	2016-17	2017-18	2018-19	2019-20	2020-21
Chemical	5911	6343	6560	5198	8809
Pharmaceuticals	2122	2741	2683	5622	80
Polymer Science & Technology	1158	1116	1100	1309	1508
Computer Science& Electronics	6443	6089	5540	11126	11930
Communication	5315	5486	6308	6862	6660
Electrical	4141	4278	4703	4587	3743
Physics	2693	2996	3659	2646	2842
Bio- Medical	1048	1095	812	3508	4911
Mechanical Engineering	10715	11573	12414	10359	10540
Bio- technology	876	992	882	1065	3368
Bio- Chemistry	258	331	282	442	820
Food	283	344	430	1111	617
Micro- Biology	253	297	301	17	0
Metallurgy & Material Science	777	713	734	836	870
Textile	837	795	881	693	900
Civil	741	779	956	816	827
General Engineering	1225	1032	1537	27	31
Agro- chemicals	319	429	392	19	3
Agriculture Engineering	245	338	411	13	11
Traditional Knowledge	84	87	74	11	6
Total	45444	47854	50659	56267	58476

ANNEXURE-III

ANNEXURE IN RESPECT OF PATENTS GRANTED REFERRED TO IN REPLY TO PART (b) OF RAJYA SABHA UNSTARRED QUESTION No. 2208 FOR REPLY ON 04.08.2022

Field of Invention/ Year	2016-17	2017-18	2018-19	2019-20	2020-21
Chemical	2673	3376	4242	4848	6074
Pharmaceuticals	551	733	761	1930	1264
Polymer Science& Technology	562	747	701	923	1745
Computer Science& Electronics	1049	1028	1074	2141	2049
Communication	805	1031	1414	2692	2857
Electrical	579	818	1253	2451	2637
Physics	260	568	703	1349	1396
Bio- Medical	167	150	290	565	703
Mechanical Engineering	1939	2514	2857	5301	6348
Bio- technology	333	546	457	357	574
Bio- Chemistry	73	142	161	188	236
Food	71	106	76	114	169
Micro- Biology	81	108	104	152	151
Metallurgy& Material Science	182	429	272	363	634
Textiles	93	179	212	493	443
Civil	100	124	155	280	412
General Engineering	228	297	303	446	378
Agro- chemicals	97	125	215	289	236
Agriculture Engineering	4	24	33	54	79
Total	9847	13045	15283	24936	28385
