

**GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
LOK SABHA  
UNSTARRED QUESTION No. 398  
ANSWERED ON 24/07/2024**

**Young Scientist Research Programme**

**398. SHRI VISHNU DATT SHARMA:**

**Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:**

- (a) whether the Government is implementing Young Scientist Research Programme;**
- (b) if so, whether there has been any corresponding increase in the number of patent filings, patent approvals, number of research papers published and increase in impact factor of research papers of India with increase in funding under the said programme;**
- (c) if so, the details thereof; and**
- (d) if not, the reasons therefor and the remedial steps taken in this regard?**

**ANSWER**

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

विज्ञान और प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्रालय के राज्य मंत्री (स्वतंत्र प्रभार)  
(डॉ. जितेंद्र सिंह)

**(a) Yes, the Government is implementing various Research Programmes for Young Scientists. The brief description of the programmes is given below:**

**Brief of programmes implemented by DST**

- 1. INSPIRE Faculty Fellowship, a component of Innovation in Science Pursuit for Inspired Research (INSPIRE) Scheme provides an opportunity to the meritorious researchers to develop independent scientific profile(s) by providing them attractive fellowship and continuous Research Grant for a period of five years.**
- 2. Scheme for Young Scientists and Technologists programme (SYST) focusses on encouraging young scientists and technologists to work towards delivery of science and technology (S&T) led solutions for identified socioeconomic challenges.**

### **3. Brief of programmes implemented by Erstwhile SERB**

- i. Start-up Research Grant (SRG) programme aims to aid researchers in initiating research careers in a new institution. It is meant to enable researchers to establish themselves and move on to mainstream research grants. The support comprises a flexibly structured research grant of Rs. 30 lakh plus overheads for a period of two years.**
- ii. National Postdoctoral Fellowship (NPDF) programme is designed to support and foster highly potential young researchers in leading research labs with accomplished mentors. The support consists of fellowship of Rs. 55,000 per month plus HRA, a research grant of Rs. 2 lakh per annum and overhead for a period of two years.**
- iii. Ramanujan Fellowship offers support to brilliant Indian scientists and engineers returning from all over the world to pursue their research career in India. This fellowship supports young researchers below the age of 40 years with a proven outstanding track record. The Ramanujan Fellows can work in any of the scientific institutions and universities across the country. The amount of fellowship offered under the scheme is Rs. 1,35,000 per month with a research grant of Rs. 7 lakh per annum and overhead charges of Rs.60,000 per annum for a period of five years.**
- iv. Teachers Associateship for Research Excellence (TARE) scheme intends to facilitate the mobility of faculty members working in state universities, colleges and private academic institutions to carry out research in established public funded institutions such as IITs, IISc, IISERs, NITs, national institutions and central universities, preferably closer to the institution where the faculty member is working. The support consists of a research fellowship of Rs. 60,000 per annum subject to completion of a minimum of 90 days of research work per year in the host institution and a research grant of Rs. 5 lakh per annum and overheads.**

### **Brief of programmes implemented by DBT**

**Department of Biotechnology (DBT) is supporting integrated Human Resource Development Programmes for young scientists/faculty/students/fellows working in areas of Biotechnology. The details of HRD Programmes are mentioned below:**

- 1. DBT-Junior Research Fellowship Programme (DBT-JRF): Department is providing fellowships for pursuing doctoral research in Indian universities and / or research institutions in the country. The students are selected through Biotechnology Eligibility Test (BET) conducted at national level. There is a provision for 500 fellowships per year. Age**

**Limit: Up to 28 years of age as on the last date of application for General & EWS category.**

- 2. DBT-Research Associateship Programme (DBT-RA):** DBT Research Associateship programme provides fellowship for post doctoral research in frontier areas of Biotechnology and life sciences at premier institutions in India. There is a provision for 100 fellowships per year. **Age Limit:** The upper age limit is 40 years for male candidates and 45 years in the case of female candidates.
- 3. Ramalingaswami Re-entry Fellowship Programme:** Ramalingaswami Re-entry Fellowship aims to attract high quality Indian brains working abroad to pursue their research interests in life sciences, biotechnology and other related areas in India. Currently, Department is providing 75 fellowships per year. **Age Limit:** The upper age limit for application is 45 years.
- 4. Har Gobind Khorana- Innovative Young Biotechnologist Fellowship Programme:** This fellowship was instituted by the Department in 2005. This is a career-oriented fellowship to identify and nurture outstanding young scientists/ faculty (regular) with innovative ideas who are desirous of pursuing research in the frontier areas of Biotechnology. There is a provision for 15 fellowships per year. **Age limit:** Not more than 35 years of age on the last date of submission of application.
- 5. MK Bhan - Young Researchers Fellowship Programme:** The Department has launched a new grant opportunity, the MK Bhan Young Researcher Fellowship Programme (MKB-YRFP) in year 2020-21, with an aim to encourage young bright researchers to continue their research in the country after PhD. The scheme is to offer an independent research grant of Rs 20.00 lakh/year and a fellowship amount of Rs 90,000/- month to young post-doctoral Fellows for 3 years to enable them to emerge as future leaders and take up cutting edge research focused on issues of national relevance. This fellowship is being awarded for research work to be carried out at DBT -Autonomous Institutes only. Currently, Department is providing 50 fellowships per year.

**(b) & (c) :** These schemes are designed to encourage young scientists to pursue cutting edge research in the field of Science and Technology. The schemes have contributed significantly towards building human resource capacity in scientific R&D. It is observed that quality of S&T output is significant for 'young scientist research programmes' as reflected in data on patent filings/approvals, research papers. Most of these research papers were published in National/ International peer reviewed journals, which have impact factor. The details of funds allocated, publications published and patents filed/granted under various programmes/schemes implemented by Ministry of Science and Technology are furnished in table 1 and 2.

**Table1: DST implemented Young Scientist Research Programmes**

<b>Schemes/Programmes implemented by DST</b>	<b>Funds allocated (in Cr)</b>	<b>Publications published</b>	<b>Patents filed/granted</b>
<b>SYST</b>	<b>19.93</b>	<b>213</b>	<b>69</b>
<b>INSPIRE</b>	<b>188.94</b>	<b>2095</b>	<b>61</b>
<b>Erstwhile SERB</b>	<b>602.11</b>	<b>7041</b>	<b>287</b>

**Table 2: DBT implemented Young Scientist Research Programmes**

<b>Schemes/Programmes implemented by DBT</b>	<b>Funds allocated (in Cr)</b>	<b>Publications published</b>	<b>Patents filed/granted</b>
<b>Har Gobind Khorana-Innovative Young Biotechnologist Fellowship Programme</b>	<b>7.91</b>	<b>90</b>	<b>3</b>
<b>MK Bhan - Young Researchers Fellowship Programme</b>	<b>22.23</b>	<b>71</b>	<b>10</b>
<b>DBT-Research Associateship Programme (DBT-RA)</b>	<b>38.51</b>	<b>134</b>	<b>4</b>
<b>DBT-Junior Research Fellowship Programme (DBT-JRF)</b>	<b>159</b>	<b>633</b>	<b>12</b>
<b>Ramalingaswami Re-entry Fellowship Programme</b>	<b>163.64</b>	<b>513</b>	<b>35</b>

Various programmes/schemes implemented by different agencies show that increased funding has led to a rise in the number of publications and granted patents. It is pertinent to mention that the number of publications, patents depends on the nature of S& T work.

**(d) Not Applicable.**

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