Are bright students coming back to science? — A study
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In the last decade, there have been indications of a declining trend of students taking up science and scientific research as a career. New programmes were started by CSIR to attract young bright students towards science. Early indication suggests a reversal in declining trend.

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Introduction

CSIR, in the beginning had been supporting higher education and research in Universities through its Extra Mural Research (EMR) programmes with only one in 1943. In 2003, there are about 13 major EMR programmes running, with four new ones in the pipeline. This has come over the years, as shown in Table 1. Though the beginning may have been modest, but today the number of beneficiaries is large and the programmes are many.

In the last decade, a few studies and research papers have indicated a declining trend of students taking up science and scientific research as a career\(^1,2\) and an alarm bell was rung by all concerned. Science education at college and high school level also came under severe scrutiny. Thus, new programmes were started by CSIR for young bright school students to attract them to science. ‘Catch them young’ being the buzz-word.

One is familiar with the fellowships, and research scheme programmes of the HRD Group of CSIR\(^3\). Some of the new programmes are the CSIR Programme on Youth for Leadership in Science (CPYLS), The Shyama Prasad Mukherjee Fellowship (SPMF), IPR Chairs (Universities of Allahabad and Pune), and Research Interns Awards (in CSIR Labs).

**CSIR Programme on Youth for Leadership in Science (CPYLS)**

Launched in 1999, this programme seeks to inspire in the toppers of X standard students a spirit of adventure, excitement and fun in science and research through individual assistance and support. This activity has been taken up through participation of all the 38 CSIR labs and it covers eligible school students from every part of India. Three batches of about 3000 students, with an equal number of parents/guardians/teachers have been counseled since 1999, at the CSIR labs.

**Shyama Prasad Mukherjee Fellowship (SPMF)**

This fellowship was launched in 2000 the birth centenary year of the first Vice President of CSIR of Independent India. The SPM Fellowship consists of a stipend of Rs 15,000/- month, and a contingency of Rs 50,000/y. The aim is to make scientific pursuit more exciting, inspiring, rewarding, and satisfying and thus to attract the most talented students to it and make it a career. The top 20 per cent (merit-wise) National Eligibility Test (NET) qualified candidates in each subject would be eligible to take this exam.

**The Intellectual Property Rights (IPR) Chair**

This chair is to study the important topic of Intellectual Property issues, which are intimately related to overall research in the country. This is related to the Patent Literacy Mission launched by CSIR. CSIR recognizing the importance has set up two Chairs at the Universities of Allahabad and Pune with Rupees 1.0 crore each as corpus fund.

**CSIR Diamond Jubilee Research Interns Award**

This award demonstrates CSIR’s commitment to the building of human resource development in science. This scheme is to be an excellent preparatory
ground for incoming interns to demonstrate their interest in scientific research as well as qualifying for securing other research fellowships. CSIR bears the cost for 2 y with Rs 7500/- month as stipend.

HRDG continued to develop the intellectual prowess of the nation by giving Junior Research Fellowships (JRF-NET), Senior Research Fellowships (SRF), Research Associateships (RA) and Senior Research Associateships (SRA or Pool Officers). It continued the interaction among scientists and faculty by training and motivation through its travel grant, to researchers, partial grant to organize seminars, symposia, conferences, etc, within the country. HRDG helps in the generation of new knowledge and trans-disciplinary research through the General Research Schemes Grants, the Sponsored Research Schemes (which are collaborative projects between universities and CSIR labs), and the Emeritus Scientists Schemes. It promotes and recognizes excellence by giving the Shanti Swarup Bhatnagar Award for Science & Technology and the Young Scientists Award to CSIR Scientists.

The National Eligibility Test (NET) syllabi have been adopted by several Universities for their PG Courses. The scope of this has been extended as a test for eligibility for lecturership also in 1989. This emphasizes the popularity of the CSIR’s NET exam. This can also be judged by the number of candidates taking this test, which has shown an increasing trend since the year 1999 (Figure 1).

At the beginning of 2003, there are positive signals that HRDG, CSIR is receiving. The long-term average value of each of the EMR schemes when compared with the 2002 value (Table I), shows prominent increase in numbers. There is also another
signal coming from admissions to science degree courses in Delhi. 5 per cent increase in the cut off percentage for science stream compared to a marginal increase for commerce and arts stream has been reported for 2003. The study certainly points out the fact that bright students are coming back to study science in preference to commerce and art subjects.

Figure 1 — CSIR NET during 10 y

References
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