them is identifying merited students. In fact, this is an issue which does not have simple solutions like falling back on the grades of the institute which awards the degree. A mechanism needs to be evolved for this purpose and the community needs to spend time to evolve a process by which it is largely satisfactory. Then there is the issue of the largesse offered by PMFS. This needs to be trimmed down significantly so that presumed merit is not rewarded disproportionately. The contingency amount that goes with the fellowship is reasonable and should be retained at the same level. A fellow should be allowed to utilize the contingency for attending reputed schools and workshops anywhere in India or abroad. A fellow must also be allowed to utilize the grant for collaborative work in any national or international laboratory for a short period of time. The period of the fellowship should also be reduced to two or three years, with the regular fellowship coming into force for the remaining period. It is important to learn lessons from the shortcomings of similar schemes such as Shyama Prasad Mukherjee Fellowships and Inspire Fellowships to take corrective measures.

To conclude, the PMFS for students who will pursue research in IISc and IITs is severely flawed and the issue needs to be taken up by the Science Academies of the country with the Government for introducing corrective measures. I sincerely hope this will lead to better implementation of the PMFS for the benefit of science and the scientific community at large.

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CSIR institutions in SIR 2018

Unlike other ranking exercises which deal only with universities and higher educational institutions, the SCImago Institutions Rankings (SIR) also cover research-focused institutions in the government and private sector.

The latest (2018) version of the report[1] has appeared online. SIR is a secondary evaluation exercise yielding a composite indicator that combines three different sets of indicators based on research performance (50% of the total weight, using primary bibliometric data from SCOPUS), innovation outputs (30% of the total weight, based on PATSTAT) and societal impact measured by their web visibility (20% of the total weight). Until 2015, as background data was also released, it was possible with the help of indirect surrogate performance indicators[2,3], to see the time evolution of progress of leading research-focused institutions over reasonably long windows (e.g. a seven-year window of 2009–2015 in ref. 2).

For several years now we have reported in these pages[2–5] the progress of CSIR institutions within India and globally. Ranking is based on results generated each year from the data retrieved over a period of five years ending two years before the edition of the ranking. For instance, rankings for 2018 are based on results from the five-year period 2012–2016. The only exception is the case of web indicators which have only been calculated for the last year. Institutions are included if they had published at least 100 works in the SCOPUS database during the last year of the selected time period. The latest release allows us to track rankings continuously from 2009 to 2018, with gaps appearing whenever institutions fall out of the net for not meeting the inclusion criterion. In SIR 2018, 5632 institutions are ranked globally, of which 271 are from India (i.e. 4.8%). SIR 2018 shows that the government sector in India accounts for 62 institutions (up from 60 last year[5]), the health sector for 12 (down from 13 last year) and the higher education sector for 197 (179 last year). This year, there is not a single research-focused institution from the private sector; Tata Sons Ltd was the solitary presence in 2016 in this sector[4]. In 2018, 30 of the constituent laboratories of the CSIR make this cut (compared to 29 in the previous year). CSIR as a whole is also counted and 30 constituent institutions are listed separately.

Four agencies make the list from India; apart from CSIR, we also have the Indian Council of Agricultural Research, the Defence Research and Development Organisation, and the Indian Space Research Organisation. Table 1 shows the evolution of the rankings of the

Table 1. National and global rankings of the four 'parent' agencies from India from 2009 to 2018

Indian Rank		Global rank									
2018	Agency	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	Council of Scientific and Industrial Research	135	142	130	117	111	102	105	99	75	132
12	Indian Council of Agricultural Research	682	666	627	589	540	516	498	509	491	563
22	Defence Research and Development Organisation	706	697	674	646	608	590	591	615	569	619
38	Indian Space Research Organisation	819	810	781	731	681	648	643	646	638	691

Table 2. National and global rankings of CSIR and its constituent institutions from 2009 to 2018.

Indian rank		Global rank									
2018	CSIR and its institutions	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	Council of Scientific and Industrial Research	135	142	130	117	111	102	105	99	75	132
2	National Chemical Laboratory	497	532	528	520	505	498	460	441	385	275
3	Indian Institute of Integrative Medicine					548	558	557	550	510	417
4	Central Salt and Marine Chemicals Research Institute	534	542	543	535	534	528	527	510	485	453
5	Indian Institute of Chemical Technology	554	565	546	527	505	511	520	493	470	477
6	Central Drug Research Institute	657	647	625	605	575	544	537	558	512	504
7	Institute of Genomics and Integrative Biology	579	588	586	567	553	544	531	514	524	508
8	Institute of Himalayan Bioresource Technology									553	511
9	Institute of Microbial Technology						587	617	644	521	545
10	Central Food Technological Research Institute	547	549	522	513	503	505	501	531	566	547
11	Indian Institute of Petroleum									589	554
13	National Institute for Interdisciplinary Science and Technology	617	594	567	527	508	482	425	353	532	564
13	Indian Institute of Toxicology Research	563	564	553	558	588	575	592	606	568	564
13	Central Institute of Medicinal and Aromatic Plants				696		602	610	611	591	564
17	Central Electrochemical Research Institute	638	637	621	602	612	601	588	567	576	573
22	North East Institute of Science and Technology								638	556	619
23	Indian Institute of Chemical Biology	670	670	655	614	573	566	566	602	574	621
24	Institute of Minerals and Materials Technology			687	650	627	614	601	628	585	625
25	Centre for Cellular and Molecular Biology	647	632	615	585	555	565	565	552	613	628
26	National Environmental Engineering Research Institute	797	766	714	672	619	586		598	605	629
28	Central Leather Research Institute	688	695	672	654	626	603	605	633	604	642
29	Central Glass and Ceramic Research Institute		647	629	626	583	564	565	645	616	652
30	National Physical Laboratory India	715	676	626	567	544	528	501	519	582	654
32	National Botanical Research Institute	724	696	654	625	611	595	616	638	605	662
33	National Metallurgical Laboratory	704	704	688	659	632	621	621	608	630	672
34	National Aerospace Laboratories					619	604	627	657	639	673
40	Central Mechanical Engineering Research Institute						639	647	647	638	697
42	National Institute of Oceanography	734	724	690	662	649	627	630	649	646	715
47	National Geophysical Research Institute	808	795	763	719	675	641	630	650	658	730
56	Central Electronics Engineering Research Institute					632	623	644	667	679	753
56	Central Scientific Instruments Organisation										753
	Count	18	19	20	21	23	26	25	27	29	30

'parent' agencies in India, with CSIR far ahead of the rest.

Table 2 lists the evolution of the rankings of CSIR and the 30 institutions of CSIR that made the cut in 2018. This year, the top 10 institutions in the government sector are all from CSIR. The total count has increased steadily, from 18 in 2009 to 30 in 2018. The Central Scientific Instruments Organisation in Chandigarh makes its appearance for the first time.

1. http://www.scimagoir.com/index.php (accessed between 25 June and 26 June 2018).
2. Prathap, G., *Curr. Sci.*, 2014, **107**, 1121–1122.
3. Prathap, G., *Curr. Sci.*, 2016, **110**, 288–289.
4. Prathap, G., *Curr. Sci.*, 2016, **111**, 962–964.
5. Prathap, G., *Curr. Sci.*, 2018, **114**, 9–11.

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