

**GOVERNMENT OF INDIA  
SCIENCE AND TECHNOLOGY  
LOK SABHA**

STARRED QUESTION NO:411

ANSWERED ON:06.08.2014

RETRACTION OF RESEARCH PAPERS

P. Shri Nagarajan;Sundaram Shri P.R.

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

(a) whether the Council of Scientific and Industrial Research (CSIR) promotes/provides assistance to Scientists working in its various institutions/laboratories to publish their findings in reputed International Science Journals and if so, the details thereof along with the number of papers published during each of the last three years and the current year;

(b) whether a reputed International Science Journal has retracted some papers prepared by Scientists of the CSIR reportedly due to fake data in the manuscript presented to them, if so, the details thereof and the retraction of the Government thereto;

(c) whether the Government/CSIR has conducted any investigation in the matter, if so, the details and the findings thereof and the action taken against the erring Scientists; and

(d) the remedial measures taken or being taken by the Government/CSIR for preventing the recurrence of such instances?

**Answer**

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

(a) to (d): A statement is laid on the Table of the House.

Statement as referred in reply to parts (a), (b), (c) and (d) of Lok Sabha Starred Question No. 411 for 06.08.2014.

(a) Yes, Madam. Council of Scientific and Industrial Research (CSIR) pursues research in diverse domains. It ranges from radio and space physics, oceanography, geophysics, chemicals, drugs, genomics, biotechnology and nanotechnology to mining, aeronautics, instrumentation, environmental engineering and information technology. CSIR provides significant technological intervention in many areas with regard to societal efforts which include environment, health, drinking water, food, housing, energy, farm and non-farm sectors. Further, CSIR's role in S&T human resource development is noteworthy. The R&D efforts lead to advancement of knowledge and creation of knowledgebase for socio-economic development. Based on the research results obtained, CSIR scientists file patents and publish papers. The number of papers published by CSIR in 2011, 2012 and 2013 were 4716, 5006 and 5062 respectively.

(b) Yes, Madam. This report relates to CSIR-Institute of Microbial Technology (CSIR-IMTECH), Chandigarh. The institute is known for its knowledgebase and has been publishing high quality papers since its inception. It received an alert raising suspicion about the authenticity of the data in some papers published by one particular group. Questioned by an investigation team constituted by the institute, the authors could not produce the relevant raw data for following papers:

# Khan, F.; Pal, D.; Vikram, S. and Cameotra S.S. (2013). Metabolism of 2-Chloro-4- Nitroaniline via Novel Aerobic Degradation Pathway by *Rhodococcus* sp. Strain MB-P1. *Plos One*, 8: e62178;

# Khan, F.; Kumari, M. and Cameotra, S.S. (2013). Biodegradation of Allelopathic Chemical *m*-tyrosine by *Bacillus aquimaris* SSC5 Involves the Homogentisate Central Pathway. *PLoS One*, 8, e75928;

# Khan, F.; Vyas, B.; Pal, D. and Cameotra, S.S. (2013). Aerobic degradation of N-methyl- 4-nitroaniline (MNA) by *Pseudomonas* sp. strain FK357 isolated from soil. *PLoS One*, 8, e75046, 2013;

# Khan, F.; Pal, D.; Ghosh, A. and Cameotra, S.S. (2013). Degradation of 2,4-dinitroanisole (DNAN) by metabolic cooperative activity of *Pseudomonas* sp. strain FK357 and *Rhodococcus imtechensis* strain RKJ300. *Chemosphere*, 93, 2883-2888;

# Khan, F.; Pandey, J.; Vikram, S.; Pal, D. and Cameotra, S.S. (2013). Aerobic degradation of 4-nitroaniline (4-NA) via novel degradation intermediates by *Rhodococcus* sp. strain FK48. *Journal of Hazardous Materials*, 254-255C: 72-78; and

# Khan, F.; Pal, D.; Ghosh, A. and Cameotra, S.S. (2013). Aerobic Degradation of 2-1 lexaone by a *Rhodococcus* Sp. Strain MB-P1 via Novel pathway. *Journal of Petroleum and Environmental Biotechnology*, 4(4): 1000151 doi 10.1016.

CSIR-IMTECH contacted the editors of above journals and requested them for retraction of the papers. First three papers have

already been retracted. Proceedings to fix responsibility are on, following which appropriate disciplinary action will be taken.

(c) Yes, Madam. Soon after receiving an alert about the authenticity of the data in some papers published by one particular group, CSIR-IMTECH constituted a "Fact Finding Committee", which concluded that the raw data in support of six papers (listed above in reply to question b) is not available with authors, and experiments described in these six papers were not done at CSIR-IMTECH. Hence, the committee was of the view that all six papers may be retracted. In addition, data related to another paper, which was submitted to institute for issue of communication number, was also not available with the group. Hence, this paper will not be communicated for publishing.

(d) As per procedure in place, every scientist of CSIR is required to diligently record experimental details in a note book and preserve raw data/machine data for future scrutiny. All students are trained in Good Laboratory Practice (GLP). Immediately on joining CSIR, scientists are sensitized to inculcate high standards of honesty in collecting and analysis of experimental data.