## GOVERNMENT OF INDIA MINISTRY OF EARTH SCIENCES LOK SABHA

### UNSTARRED QUESTION NO. 2482 TO BE ANSWERED ON WEDNESDAY 11 MARCH 2015

#### **USE OF BIOLOGICAL ELEMENTS**

2482. SHF	II PANKAJ	CHAUDHARY:
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Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Government has chalked out any action plan to use various kinds of biological elements found in the Indian oceans in the interest of mankind;
- (b) if so, whether the Government proposes to prepare a programme for manufacturing medicines from such biological elements to treat serious diseases;
- (c) if so, the details thereof; and
- (d) the names of the institutions which have been roped in for the purpose?

#### **ANSWER**

# MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTRY OF EARTH SCIENCES (DR. HARSH VARDHAN)

- (a) No Madam. However, a systematic long term coordinated exploratory research programme on the development of potential Drugs from the Sea is under implementation to collect samples from the sea for exploring towards identifying pharmaceutical potential of various biological elements under the coordinating responsibility of the CSIR-Central Drug Research Institute, Lucknow. Details of the programme are given in Annexure.
- (b) No, Madam
- (c-d) Does not arise

As of now, more than 14000 marine samples (both fauna and flora) were screened for wide spectrum of bioactivity against cancer, bacterial, fungal, parasitic, TB, viral infections, as well as against dyslipidemia and diabetes and successful breakthrough have been achieved in respect of two marine products (CDR-134F194 and CDR-267F018) and they are in different stages of development.

CDR-134-D123 (Anti-diabetic): Phase- I (consisting of both single dose and multiple doses) clinical trial was completed successfully on 36 volunteers and a dossier has been compiled and submitted to the department of Ayurveda, Unani, Siddha and Homoeopathy (AYUSH). It has since been licensed to TVC Sky Shop Limited for fast track marketing through AYUSH.

CDR-134-F194 (Anti-hyperlipidemic): It has since been licensed to TVC Sky Shop Limited. Permission for Phase I clinical trials has been obtained and the clinical trials will be initiated.

CDR- 267F018: (Anti-dyslipidemic): An anti-dyslipidemic standardized fraction on which most of the developmental work has been completed. The IND filing of the same may be made in near future after completion of a few studies.

Following institutions across the country have been involved at different stages in the exploratory research programme alongwith CSIR-CDRI, Lucknow

- i. National Institute of Oceanography, (NIO), Goa
- ii. Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar
- iii. Indian Institute of Chemical Technology (IICT), Hyderabad
- iv. Institute for Minerals and Materials Technology (IIMT), Bhubaneswar
- v. National Institute of Ocean Technology, (NIOT), Earth System Science Organization, Chennai
- vi. Advanced Centre for Treatment, Education and Research (ACTREC), Mumbai
- vii. Central Institute of Fisheries Education (CIFE), Mumbai
- viii. Department of Fisheries, Government of West Bengal, Kolkata
- ix. Toppiwala National Medical College, Mumbai.
- x. Andhra University, Visakhapatnam
- xi. Calcutta University, Kolkata
- xii. Annamalai University, Parangipettai
- xiii. University of Madras, Chennai.
- xiv. Central Marine Living Resources & Ecology, Earth System Science Organization, Kochi.
- xv. Jadavpur Univesity, Kolkata.
- xvi. Central Marine Fisheries Research Institute, Ernakulam
- xvii. JNT University Hyderabad
- xviii. Sri Venkateswara University, Tirupati
- xix. National Institute for Interdisciplinary Science and Technology (CSIR), Thiruvananthapuram
- xx. Indian Institute of Technology, Kanpur
- xxi. National Chemical Laboratory, Pune
- xxii. National Institute of Science Education and Research, Bhubaneswar.