

**GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA**

UNSTARRED QUESTION NO:2388
ANSWERED ON:24.11.2010
DISCOVERY OF OCEAN MEDICINE
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Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether Indian scientists are undertaking research in Ocean to locate AMRIT (elixir) after successful breakthrough in discovery of ocean medicines for curing diabetes and cancer;
- (b) if so, the details thereof; and
- (c) the success achieved so far in this regard?

Answer

MINISTER OF HUMAN RESOURCE DEVELOPMENT, MINISTER OF SCIENCE AND TECHNOLOGY, MINISTER OF EARTH SCIENCES AND MINISTER OF TELECOMMUNICATION AND INFORMATION TECHNOLOGY (SHRI KAPIL SIBAL)

(a) The Indian scientists have undertaken research in ocean to harness bioactive compounds from marine organisms to develop drugs for human therapeutic purposes.

(b) The scientists have screened more than 14000 marine samples (both fauna and flora) for wide spectrum of bioactivity against cancer, bacterial, fungal, parasitic, TB, viral infections, as well as against dyslipidemia and diabetes. At present 18 leads are being pursued against different bioactivities and are under optimization and confirmation. In this endeavour 14 different reputed R&D labs are actively involved. The details of participating Centres are as given below:

National R&D Labs: (1) Central Drug Research Institute (CDRI), Lucknow; (2) National Institute of Oceanography, (NIO), Goa; (3) Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar; (4) Indian Institute of Chemical Technology (IICT), Hyderabad; (5) Institute for Minerals and Materials Technology (IICT), Bhubaneswar; (6) National Institute of Ocean Technology, (NIOT), Chennai; (7) Advanced Centre for Treatment, Education and Research (ACTREC), Mumbai; and (8) Central Institute of Fisheries Education (CIFE), Mumbai.

State Government Institutions: (9) Department of Fisheries, Government of West Bengal, Kolkata and (10) Topiwala National Medical College, Mumbai.

Universities: (11) Andhra University, Visakhapatnam; (12) Calcutta University, Kolkata; (13) Annamalai University, Parangipettai; and (14) University of Madras, Chennai.

(c) Successful breakthrough have been achieved in respect of five compounds and they are in different stages of development as described below:

CDR-134-D123 (Anti-Diabetic agent): 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 Department of Ayurveda, Unani, Siddha and Homoeopathy (AYUSH), Ministry of Health and Family Welfare. It has been licensed to TVC Sky Shop Limited for fast track marketing through AYUSH.

CDR-134-F194 (anti-hyperglycemic cum anti-hyperlipidemic fraction): While seeking approval of Committee on Investigational New Drug (IND), it was suggested some changes in the protocol. Accordingly, a fresh clearance from Ethics Committee is being sought at CDRI, Lucknow.

CDR-267-F-018 (Anti-dyslipidemic & Anti-hyperglycemic): Regulatory toxicity studies in monkeys are being initiated for the product development.

A novel compound, Tiruchenduramine was discovered from Indian Ascidians (*Synicum macroglossum*) for anti-diabetes and US Patent granted for its isolation and synthesis.

CU1-002 (Anti-dyslipidemic): Studies initiated for Biomarker development to comply with requirement of DCGI for resubmission of IND application to commence Phase-I Clinical Trial.