

**GOVERNMENT OF INDIA  
MINISTRY OF AYURVEDA, YOGA & NATUROPATHY,  
UNANI, SIDDHA AND HOMOEOPATHY  
(AYUSH)**

**LOK SABHA  
UNSTARRED QUESTION NO. 6637  
TO BE ANSWERED ON 6<sup>TH</sup> APRIL, 2018**

**MODERN MEDICINE**

**6637. SHRI C.S. PUTTA RAJU:**

Will the Minister of **AYURVEDA, YOGA AND NATUROPATHY, UNANI, SIDDHA AND HOMOEOPATHY (AYUSH)** be pleased to state:

- (a) whether efforts are being made to integrate Ayurveda with modern medicine with the help of Genomics;
- (b) if so, the details thereof;
- (c) whether a study was conducted by the Institute of Genome and Integrated Biology in this regard;
- (d) if so, the details thereof; and
- (e) the manner in which the Ministry is planning to take it forward?

**ANSWER  
THE MINISTER OF STATE (IC) OF THE MINISTRY OF AYURVEDA,  
YOGA & NATUROPATHY, UNANI, SIDDHA AND HOMOEOPATHY  
(SHRI SHRIPAD YESSO NAIK)**

(a): The Council of Scientific & Industrial Research (CSIR), through its constituent laboratory, CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB), New Delhi is exploring integration of Ayurveda with modern medicine in research settings through the programme, Ayurgenomics. Through this, research for integration of Ayurveda principles and methods with modern medicine through the platform of genomics is pursued

(b): Progress made so far in the integrative approach of Ayurveda with modern medicine and genomics studies indicate the potential of development of effective treatment for better management of health and disease. This is likely to be useful in Ayurveda as well as modern medicine based settings.

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(c) & (d): The integrative approach of Ayurgenomics has provided insights into the modern scientific basis to the Ayurveda concepts of Prakriti for predictive, preventive and personalised medicine. The study has provided few leads especially in high altitude adaptation and individualised differences in thrombotic outcomes as well as therapeutic modulation of asthma. Questionnaire based Prakriti classification has been validated using advanced statistical and machine learning (AI) methods at CSIR-IGIB. The observed correlates of Prakriti at different omic levels (transcriptome, genome and microbiome) are likely to provide markers for disease screening, prevention, early interventions and personalised therapeutics. This needs to be tested in clinical settings rigorously.

(e): Central Council for Research in Ayurvedic Sciences (CCRAS) an autonomous body under the Ministry of AYUSH has initiated a project for “*Development of a Standardized Prakriti Assessment Scale*” as presently available questionnaires for *Prakriti* assessment lack standardization in content, format and scoring system as a part of Multicentric Projects on *Prakriti* based (Ayurgenomics).

After standardization of *Prakriti* Assessment Scale, the study on co-relates of *Prakriti* with genomes and other relevant factors is under planning.

Till now vide several expert meetings a format of questionnaire / examination of *Prakriti* has been developed and has been validated at 10 Centres of CCRAS.

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