### GOVERNMENT OF INDIA MINISTRY OF AYUSH RAJYA SABHA

## UNSTARRED QUESTION NO. 3361 TO BE ANSWERED ON 1st APRIL 2025

#### "Integration of Ayurveda with Modern Medicine"

### 3361 Shri Ayodhya Rami Reddy Alla:

Will the Minister of *Ayush* be pleased to state:

- (a) the measures taken and to be taken to facilitate a symbiotic relationship between ayurvedic and allopathic systems of medicine, ensuring a holistic approach to healthcare;
- (b) the manner in which the AYUSH Ministry would promote research and development in Ayurveda, leveraging modern technologies to enhance its efficacy and global acceptance; and
- (c) the strategies employed and to be employed to address the concerns of standardization and quality control in Ayurvedic products, ensuring their safety and reliability for consumers?

#### ANSWER

# THE MINISTER OF STATE (IC) OF THE MINISTRY OF AYUSH (SHRI PRATAPRAO JADHAV)

- (a) The Ministry of Ayush has undertaken various measures to facilitate a symbiotic relationship between ayurvedic and allopathic systems of medicine ensuring a holistic approach to healthcare:
- i. The Ayush Vertical under Directorate General of Health Services (DGHS), established by the Ministry of Ayush and Ministry of Health and Family Welfare (MoH&FW), serves as a dedicated institutional mechanism for planning, monitoring, and supervising Ayush-specific public health programs. This vertical provides technical support to both Ministries in developing strategies for public health, healthcare, Ayush education, and training.

ii. The Ministry of Ayush and MoH&FW have jointly established Integrated Ayush Departments in Central Government Hospitals to promote integrative healthcare. As part of this initiative, Department of Integrative Medicine has been set up and is operational at Vardhman Mahavir Medical College & Safdarjung Hospital and Lady Hardinge Medical College, New Delhi through All India Institute of Ayurveda (AIIA), New Delhi and Central Ayurveda Research Institute (CARI), Punjabi Bagh, New Delhi respectively.

iii. Government of India has adopted a strategy of Co-location of AYUSH facilities including Ayurveda at Primary Health Centres (PHCs), Community Health Centres (CHCs) and District Hospitals (DHs), thus enabling the choice to the patients for different systems of medicines under a single window. The engagement of AYUSH doctors/ paramedics including Ayurveda and their training is supported by the Ministry of Health & Family Welfare under National Health Mission (NHM), while the support for AYUSH infrastructure, equipment/ furniture and medicines including Ayurveda are provided by the Ministry of Ayush under National AYUSH Mission (NAM) as shared responsibilities.

iv. The Central Council for Research in Ayurvedic Sciences (CCRAS) has undertaken research studies such as Operational study to explore the feasibility of integrating Ayurveda with modern system of medicine in a tertiary care hospital (Safdarjung Hospital New Delhi) for the management of Osteoarthritis (Knee), Feasibility of introducing the Indian System of Medicine (Ayurveda) in the National Reproductive and Child Health services at the Primary Health Care (PHC) level in Himachal Pradesh and Integration of AYUSH systems in the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) and Feasibility of introducing Ayurveda Intervention in Reproductive and Child Health (RCH) in PHCs of the Selected district (Gadchiroli) of Maharashtra (Effectiveness of Ayurvedic intervention for Ante-Natal care (Garbhini Paricharya) at Primary Health Care level: A Multi Centre Operational Study). Further, Indian Council of Medical Research (ICMR) and CCRAS has taken an initiative to set up Ayush-ICMR Advanced Centre for Integrative Health Research (AI-ACIHR), at All India Institute of Medical Sciences (AIIMS) to conduct research on identified areas focusing on integrative healthcare under Extra Mural research Scheme of ICMR.

v. In All India Institute of Ayurveda (AIIA), New Delhi, integrative medical services are available under Centre for Integrative Cancer Therapy, Centre for Integrative Dentistry, Centre

for Integrative Critical Care & Emergency Medicine, Centre for Integrative Orthopedics, Centre for Integrative Dietetics and Nutrition and Causality OPD Section. Integrated services are also provided through Satellite Clinical Services Units established at Integrative Medical Services Unit at Safdarjung Hospital, New Delhi, Integrative Medical Services Unit AIIMS Jhajjar and Centre for Integrative Oncology at National Cancer Institute - AIIMS, Jhajjar.

vi. The National Institute of Ayurveda (NIA) provides integrated treatment options through the state of art surgical theatres and labour room having Ayurveda and allopathic experts. Allopathic experts are also available in the NABL accredited Central Clinical Lab, Advanced Endoscopic Unit, Primary Emergency Unit and Radiology Department in the institute. NIA recently established an Integrated Child Development Centre where paediatric patients are treated through experts from both the fields. Further, a centre in the premises of North-West Railway Hospital has been established wherein the experts of both the systems consult and cross-refer patients. The Institute has established a unique and most advanced facility of Ultra-Modern Drug Discovery and Development Unit which includes advanced animal house. Institute is having the facilities of the drug testing labs which use the integrated modules for the drug testing and the modern experts are engaged to perform the testing along with Ayurveda experts. Apart from this, many cutting edge facilities like most advanced Physiology lab with sophisticated instrumentation, Virtual labs, Virtual dissection tools and advanced simulation Labs have been established for the best and integrative training of the students.

vii. National Commission for Indian System of Medicine (NCISM) has developed the Ayush Module – Internship Electives for MBBS for Ayurveda, Unani and Siddha system of medicine.

(b) The Ministry of Ayush promotes Research and Development in Ayurveda, leveraging modern technologies to enhance its efficacy and global acceptance through the following ways:

i. The Ministry of Ayush is implementing a Central Sector Scheme namely AYURGYAN since 2021-22 with the aim to support Research & Innovation in Ayush through Extra Mural Research activities and Education by providing academic activities, training, capacity building etc. The Scheme has three components viz. (i) Capacity Building & Continuing Medical Education (CME) in Ayush (ii) Research & Innovation in AYUSH and (iii) Ayurveda Biology Integrated Health Research (ABIHR). Under the component of Ayurveda Biology Integrated Health Research (ABIHR), financial assistance is provided to the eligible organizations for AI–driven Network Pharmacology based drug research for complex Ayush formulations to generate

evidence for the safety efficacy, drug/food interactions studies and real-world evidence for integrative practice and to develop Ayush based standardized diagnostic and therapeutic devices/equipment by utilization of cutting-edge medical instrumentation technologies and computational tools for bringing in objectivity and validity. Under ABIHR component, with a vision of drug development based on single botanicals in Ayurveda for positioning in the global market, Ministry of Ayush has prioritized five single botanicals viz. Ashwagandha (Withania somnifera), Brahmi (Bacopa monierri), Shallaki (Boswellia serrata), Shunthi (Zinziber officinale) and Methika (Trigonella foenum-graecum) in project mode.

ii. The Ministry of Ayush has been implementing the Central Sector Scheme namely Ayurswasthya Yojana since 2021-22 with two components viz. (i) Ayush & public health (PHI) component and (ii) Upgradation of facilities to the Centre of Excellence. Under the Centre of Excellence component, financial assistance is provided to support creative and innovative proposals of prestigious organizations with well-established buildings and infrastructure and wish to work for Ayush systems to the level of Centre of Excellence. Total nine organizations of National repute such as Tata Memorial Centre, (TMC) Mumbai, Central Drug Research Institute (CDRI), Lucknow, Jawaharlal Nehru University, (JNU) New Delhi, Indian Institute of Technology (IIT) Delhi, Indian Institute of Science (IISC) Bengaluru, Centre for Integrative Medicine and Research (CIMR), AIIMS New Delhi, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, Institute of Liver and Biliary Sciences (ILBS), Indian Institute of Technology, (IIT) Jodhpur have been funded under the Centre of Excellence component of Ayurswasthya Yojana under the activity-based/research-based Centre of Excellence for enhancing interdisciplinary research in Ayush involving modern scientists.

iii. The Ministry of Ayush, under the Central Sector Scheme for Promotion of International Cooperation for Ayush, provides support to Indian Ayush drug Manufacturers/ Ayush Service providers to give boost to the export of Ayush products and services; facilitates the International promotion, development and recognition of Ayush systems of medicine; foster interaction of stakeholders and market development of Ayush at international level; promote academics and research through the establishment of Ayush Academic Chairs in foreign countries and holding training workshop/symposiums for promoting and strengthening awareness and interest about Ayush Systems of Medicine at international level including Ayurveda. The Ministry of Ayush, Government of India has signed 24 Country-to-Country level MoUs, and 51 Institute-to-Institute level MoUs, to promote and strengthen traditional Indian Medicine including Ayurveda.

iv. The Ministry of Ayush has setup Central Council for Research in Ayurvedic Sciences (CCRAS) an autonomous organization for undertaking coordinating formulating, developing and promoting research on scientific lines in Ayurveda. The research activities are carried out through 30 institute/Centres located all over India and through collaborative studies with various universities, hospitals and institutes. Core research activities of the Council include Clinical Research, Medicinal Plant Research (Medico-ethnobotanical Survey, Pharmacognosy, and Cultivation), Drug Standardization, Pharmacological Research, Literary Research & Documentation Programme, Public Health research-oriented activities.

v. The All India Institute of Ayurveda (AIIA), an autonomous institution under the Ministry of Ayush has established research infrastructure with state of the art modern technology and instrumentations such as Integrated Translational Molecular Biology Laboratory, In-house Animal house and Pharmacology Laboratory, Analytical Chemistry Laboratory, Central Pathology Laboratory, Regional Raw Drug Repository (RRDR), Sleep Laboratory, Ayurinformatics Lab and an Incubation Center for Ayurveda Innovation and Enterprise (iCAINE). The institute has signed 61 National and 17 international MoU's to promote research and development.

vi. The National Institute of Ayurveda (NIA) has established six interdisciplinary departments to promote both the practice and research of Ayurveda by incorporating the expertise of specialists from Ayurvedic and modern scientific fields. Dual Ph.D. degree programs launched by NIA in collaboration with the Academy of Scientific and Innovative Research (AcSIR) facilitate translational and integrative research. The institute has set up essential research facilities equipped with cutting-edge technology and advanced instruments including Integrated Translational Research Laboratories, Pharmacology laboratory, Pharmacognosy Lab, Pharmacology Lab, Drug Testing Lab, Central Pathology Lab, Central Microbiology Lab, Central Immunology Lab, Central Bio-chemistry Lab, Radio-diagnostic lab, Food Lab, advanced Manuscriptology Department, Regional Raw Drug Repository (RRDR) and an Inhouse GMP certified Pharmacy. In addition, the institute boasts a comprehensive and rigorous research screening process and established a Project Management Unit (PMU) and a clearly defined research policy, to foster an environment that promotes innovative research and development in Ayurvedic practices. The institute features a distinctive publication policy that offers financial support to authors, empowering them to disseminate their high-quality research findings in prestigious, high-impact journals and actively engages in collaboration through multiple Memoranda of Understanding (MoUs) at both National and International levels, facilitating knowledge exchange and partnership in the pursuit of advancing Ayurvedic sciences.

vii. NCISM in collaboration with CCRAS has launched Studentship Program for Ayurveda Research Ken (SPARK) in 2022-23 to promote interest and aptitude for research among Ayurveda undergraduates. Under this programme, a studentship of Rs.50000 is given to each undergraduate student. Under the Scheme for Training in Ayurveda Research for Post Graduate Scholars (PG-STAR) launched by NCISM in collaboration with CCRAS, a studentship of Rs. 100000 is given to 100 selected PG students for their dissertation work. This scheme is primarily aimed at promoting good quality research in Ayurveda students pursuing post-graduation courses as well as to improve visibility and accessibility of their research work to larger research audience. Further, the Scope for Mainstreaming Ayurveda Research among Teaching Professionals (SMART) programme has been launched by NCISM in collaboration of CCRAS to boost scientific research in priority healthcare research areas through Ayurveda colleges and hospitals with the objective to identify, support and promote innovative research ideas in healthcare research areas. Further NCISM has introduced the scheme of 'Publication Grant to the eligible candidates (Teacher/Practitioner/Student) for publication of research papers in quality journals.

(c) In order to address the concerns of standardization and quality control in Ayurvedic products, the following measures have been taken:

i. Rule 158-B and Rule 85 (A to I) of the Drugs Rules, 1945 provides the regulatory guidelines for issue of license to manufacture Ayurvedic, Siddha, Unani (ASU) and Homoeopathy medicines respectively. It is mandatory for the manufacturers to adhere to the prescribed requirements for licensing of manufacturing units & medicines including proof of safety & effectiveness, compliance with the Good Manufacturing Practices (GMP) as per Schedule T & Schedule M- I of the Drugs Rules, 1945 for Ayurveda, Siddha, Unani drugs and Homoeopathy drugs respectively and also to follow the quality standards of drugs as prescribed in the respective pharmacopoeia. Drug Inspectors collect medicine samples regularly from manufacturing firms or sale shops with in their jurisdiction and sent it to Drug Testing Laboratory under Drug Control department for quality testing and if any sample found to be Not of Standard Quality, appropriate action is initiated as per Drugs and Cosmetics Act 1940 and Rules made thereunder.

- ii. Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H), a subordinate office under Ministry of Ayush lays down the Formulary specifications and Pharmacopoeial Standards for Ayurveda, Siddha, Unani & Homoeopathic (ASU&H) drugs, which serve as official compendia for ascertaining the Quality Control (identity, purity and strength) of the ASU&H drugs, included therein, as per Drugs & Cosmetics Act, 1940 and Rules made thereunder and compliance to these quality standards are mandatory for the production of ASU&H drug being manufactured, sold and stocked in India.
- iii. The Ministry of Ayush has implemented Central Sector Scheme Ayush Oushadhi Gunavatta Evam Uttpadan Samvardhan Yojana (AOGUSY) in the year 2021 with the following objectives:
  - 1. To enhance India's manufacturing capabilities and exports of traditional medicines and health promotion products under the initiative of Atmanirbhar Bharat.
  - 2. To facilitate adequate infrastructural & technological upgradation and institutional activities in public and private sector for standardization, quality manufacturing and analytical testing of Ayush drugs & materials.
  - 3. To strengthen regulatory frameworks at Central and State level for effective quality control, safety monitoring and surveillance of misleading advertisements of Ayush drugs.
  - 4. To encourage building up synergies, collaborations and convergent approaches for promoting standards and quality of Ayush drugs & materials.

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