

**GOVERNMENT OF INDIA
MINISTRY OF AYUSH**

**RAJYA SABHA
UNSTARRED QUESTION NO.1604
TO BE ANSWERED ON 03rd AUGUST, 2021**

**LABORATORY RESEARCH ON DEVELOPMENT OF EFFECTIVE MEDICINES
UNDER AYURVEDA**

1604. SHRI SAMBHAJI CHHATRAPATI

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

- (a) whether Government has encouraged the research laboratories to develop Ayurvedic medicines for different diseases in the country;
- (b) if so, the details of ongoing projects in different laboratories and progress made so far in each case; and
- (c) the steps Indian laboratories are proposing to take to get international recognition of Ayurvedic medicines being developed in India ?

**ANSWER
THE MINISTER OF AYUSH
(SHRI SARBANANDA SONOWAL)**

(a)& (b): The Government of India, Ministry of Ayush has established Central Council for Research in Ayurvedic Sciences (CCRAS), as an apex body for undertaking, coordinating, formulating, developing and promoting research on scientific lines in Ayurvedic Sciences. The activities are carried out through its 30 peripheral Institutes/Centres/Units located all over India and also through collaborative studies with various Universities, Hospitals and Institutes. The research activities of the Council include Medicinal Plant Research (Medico-Ethno Botanical Survey, Pharmacognosy and Tissue Culture), Drug Standardization, Pharmacological Research, Clinical Research, Literary Research & Documentation.

The CCRAS has undertaken the development of the following coded formulations which are at different phases of drug development:

S.No.	Name of the Laboratory	Ayurveda medicine and diseases
1	Captain Srinivasa Murthy Regional Ayurveda Drug Development Institute, Chennai (CSMCRI), Chennai and Central Ayurveda Research Institute for Drug Development, (CARI), Kolkata	AYUSH Manas for Mental retardation/cognitive deficit.
2	CSMCRI, Chennai	AYUSH QOL 2C for improving Quality of Life of Cancer patients.
3	CSMCRI, Chennai CARI, Kolkatta	AYUSH Rasayan A & B in geriatric health.
4	CSMCRI, Chennai CARI, Kolkatta	AYUSH C1 Oil for wound healing.
5	CSMCRI, Chennai	AYUSH PJ-7 for Dengue fever.
6	CSMCRI, Chennai	AYUSH M-3 for Migraine.
7	CSMCRI, Chennai	AYUSH SL for Filariasis.
8	CSMCRI, Chennai CARI, Kolkatta	AYUSH A for Bronchial Asthma.
9	CSMCRI, Chennai	AYUSH D for Type II Diabetes Mellitus.

The Council of Scientific and Industrial Research (CSIR), through its constituent laboratories is pursuing research and development on natural products including medicinal and aromatic plants involving various aspects such as development of high yielding varieties, their related agro technologies, extraction of active phytoconstituents and their standardization, development of formulation(s) and their scientific validation on animal models.

The details are mentioned as under:

S.No.	Name of the Laboratory	Progress made so far
1.	CSIR – Central Drug Research Institute, Lucknow	<ul style="list-style-type: none"> • Developed a standardized extract of Dalbergia sissoo for accelerated fracture healing & management of post-menopausal osteoporosis. • The following significant products are under various stages of development in Phytopharmaceutical / AYUSH Mode: <ol style="list-style-type: none"> i. Standardized fraction of Cassia occidentalis Linn. for the treatment of glucocorticoid induced osteoporosis (GIO). ii. Picrorhizakurroa for the management of Non Alcoholic Fatty Liver Diseases (NAFLD). iii. Tinosporacordifolia for the management of cognitive impairments in CNS disorders.
2.	CSIR-Indian Institute of Integrative Medicine, Jammu	<p>The institute is conducting following studies:</p> <ol style="list-style-type: none"> i. Ashwagandha for the Prophylaxis against SARS-CoV-2 Infection: A Randomized Hydroxychloroquine Controlled Clinical Trial in Health Care Providers; ii. A Randomized, Open Label, Parallel Efficacy, Active Control, Multi-Centre Exploratory Drug Trial to Evaluate Efficacy and Safety of Ayurvedic formulation-2 (T. cordifolia + P. longum) as Adjunct Treatment to Standard of Care for the management of Mild to Moderate COVID-19 Patients; and iii. A Randomized, Open Label, Parallel Efficacy, Active Control, Multi-Centre Exploratory Drug

		<p>Trial to Evaluate Efficacy and Safety of Ayurvedic formulation-3 (Glycyrrhizaglabra) as Adjunct Treatment to Standard of Care for the management of Mild to Moderate COVID-19 Patients.</p>
3.	CSIR-National Botanical Research Institute, Lucknow	<p>Developed anti-cough & anti-tussive product and an herbal combination against Urolithiasis & nephrolithiasis and post lithotripsy conditions (ESWL).</p> <p>The following projects are currently being implemented:</p> <ul style="list-style-type: none"> i. Herbal product development for industrial application. ii. A novel herbal product for Vulvovaginal candidiasis. iii. Development of Cost effective and iron fortified herbal supplement for dysmenorrheal (menstrual disorder). iv. Development of nutraceutical supplement for diarrheal conditions. v. Evaluation of seasonal effect on anti-hypertensive indole alkaloid of Rauvolfia sp. from Northern India and development & validation of physicochemical and molecular markers.
4.	CSIR- Central Institute of Medicinal and Aromatic Plants, Lucknow	<p>Developed BGR-34 (NBRMAP-DB) (in collaboration with CSIR-NBRI) from the Ayurveda for management of Type-2 diabetes mellitus (T2DM).</p>

		Validated the classical properties of the Kalmegh (<i>Andrographis paniculata</i>). The product technology entitled “Kalmegh based immune booster [CIM-MeghCIMAP] for combating the COVID-19 related symptoms: An Ayurvedic proprietary medicine” developed and transferred to the Industry partner of KVIC, MSME sector.
5.	CSIR- Institute of Himalayan Bioresource Technology, Palampur	<p>The following activities are being done:</p> <ul style="list-style-type: none"> i. Anti-malarial aspect and identified lead extract/molecules from traditionally used medicinal plants. ii. Validation of functional foods, nutraceuticals and phytopharmaceuticals in terms of their preclinical validation in vitro and in vivo set up. iii. Immunomodulation activity on tea based polyherbal formulation is reported at preclinical level. Formulation was developed under the regulatory mechanism of FSSAI and product was recently launched under the trade name “IMMUST PRO” (Immunity modulation product). iv. Efficacy of medicinal herb <i>Picrorhiza kurroa</i> has been tested in Type II diabetes mellitus v. Anti-colitis activity of <i>Berberis lycium</i> fruits has demonstrated with good efficacy at preclinical level vi. Validation and safety of clinically used ayurvedic preparations including, trikatu, triphala, arjunaksheerpak and phalatrikadikwath has been validated for their efficacy.

- (c) The CCRAS has signed 16 Institute to Institute Memorandum of Understanding (MoUs) with 14 countries for cooperation in the field of Traditional Medicine to facilitate awareness generation regarding AYUSH systems and to undertake research and development activities based on the potential of AYUSH systems of medicine for promotion and scientific acceptance of AYUSH and establishment of academic Chairs in Ayurveda. Under these MoUs, trainings is being conducted through mutual Exchange Programmes, participating and inviting for seminars, symposia, workshops, events to share mutual experiences. This would create awareness about AYUSH systems globally and would provide suitable platform to position AYUSH internationally.
