

**GOVERNMENT OF INDIA
MINISTRY OF AYUSH**

RAJYA SABHA

UNSTARRED QUESTION NO. 2724

TO BE ANSWERED ON 17th MARCH 2026

Promotion of integrative cancer care through Ayush

2724. Dr. Bhim Singh:

Will the Minister of Ayush be pleased to state:

- (a) whether research is being conducted on medicines for the treatment of cancer and diabetes (sugar) through Ayurvedic, Siddha, Unani and other traditional medical systems with the aim of developing remedies that have minimal side effects and effectively address the root cause of the disease, if so, the details of the major research conducted so far along with the findings thereof; and
- (b) whether the medicines developed based on these researches have been approved for scientific evaluation, clinical trials and public use, if so, the number of such medicines currently being used in treatment and the benefits received by patients therefrom?

ANSWER

THE MINISTER OF STATE (IC) OF THE MINISTRY OF AYUSH

(SHRI PRATAPRAO JADHAV)

(a) Yes. Ministry of Ayush through its Research Councils namely; Central Council for Research in Ayurvedic Sciences, Central Council for Research in Homoeopathy, Central Council for Research in Siddha, Central Council for Research in Unani Medicine and National Institutes namely; All India Institute of Ayurveda and Institute of Teaching and Research in Ayurveda are undertaking research and healthcare activities related to cancer and diabetes through respective systems of medicine. Details of the research projects by the respective Research Councils /National Institutes are at the Annexures (I-V).

Further, Ministry of Ayush through Central Sector Scheme -Ayurgran Scheme and Ayurshwashtya Yojana provides financial assistance for research on cancer and diabetes. Details are at the Annexures VI.

(b) All scientific evaluations and clinical trials are conducted following due procedures, including approvals from the Institutional Review Board (IRB) and Institutional Ethics Committee (IEC), and in accordance with applicable regulatory and ethical guidelines. Further, the Ayurveda, Siddha and Unani Medicines used for clinical purposes in Ayush institutions are primarily classical formulations mentioned in the respective pharmacopoeias and classical texts of the systems of medicine which are published in the respective pharmacopoeias and are described in classical texts and have been in continuous clinical use by Ayurveda, Siddha and Unani physicians.

Scientific evidence of clinical efficacy and safety of approximately 182 classical Ayurveda formulations for 40 disease conditions have been generated by Central Council for Research in Ayurvedic Sciences among them 08 classical formulations and 02 coded formulations have been tested in Diabetes. For cancer, 02 coded formulations have been tested. Moreover, 02 coded formulations and 06 classical formulations have been tested in pre-clinical setups.

Similarly, in the Homoeopathy system, medicines are prescribed based on the totality of symptoms and individualized treatment principles. The medicines used are those listed in the Homoeopathic Pharmacopoeia of India (HPI) published by the Government of India, which lays down standards for the quality, preparation, and use of homoeopathic medicines. Homoeopathic medicines developed through research have also undergone scientific evaluation and clinical studies.

Annexure-I

Details of research projects undertaken by Central Council for Research in Ayurvedic Sciences (CCRAS) on Cancer and Diabetes

| S.No | Title of the project | Participating institute |
|----------------------------------|--|--|
| Clinical research studies | | |
| 1. | A Pilot Study Evaluating Quality of Life with AYUSH QOL – 2C in Patients of Local Non-Metastatic Breast Cancer Treated with Adjuvant Chemotherapy/Radiotherapy and Correlating it with Molecular Marker | AIIMS, New Delhi |
| 2. | Evaluating Quality of Life with Ayush QOL 2C in Patients of Non-Metastatic Breast Cancer as an Adjuvant to Chemotherapy | St. John’s Medical College, Bengaluru |
| 3. | Effect of “Ayush QOL-2C ” (Ayurvedic coded drug) in stage III & IV Non-Small Cell Lung Cancer to prevent side effects of Chemotherapy – A Randomized Phase II Feasibility & Tolerability study | Bhagwan Mahaveer Cancer Hospital & Research centre, Jaipur |
| 4. | A phase II trial to study efficacy, toxicity and immunomodulatory effect of Carctol-S in high grade serous epithelial ovarian cancer at first serological relapse | CARI, Mumbai in collaboration with TMC, Mumbai |
| 5. | Assessment of Prakriti (Ayurvedic body constitution) of patients with Cervical and Ovarian cancers. | CARI, Mumbai in collaboration with Tata Memorial Hospital (TMH), Mumbai. |
| 6. | Study of Association between Prakriti and Outcomes of early and locally advanced breast cancer. | CARI, Mumbai in collaboration with ACTREC, TMC, Mumbai |
| 7. | A Cross-sectional study of Cancer KAP among Ayurveda and Allopathic fraternity | CARI, Mumbai |
| 8. | Ayurveda Interventions for Cancer: Systematic Review, Meta-analysis; and Revival, Documentation, Validation and analysis of data from practitioners, institutes | CARI, Mumbai |
| 9. | Ayush ICMR-Advanced Centre for Integrative Health Research (AI-ACIHR) in Cancer Care at AIIMS Nagpur. | Ayush ICMR collaboration: AIIMS, Nagpur |
| 10. | An open label parallel arm randomized controlled trial to assess the efficacy of ayurvedic medicines in the management of Oral submucosal fibrosis in a tertiary care hospital at central India | CARI, Mumbai in collaboration with AIIMS Nagpur |

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| 11. | An evaluation of safety, Efficacy and treatment Adherence of Gandoosha oral oil Retention Procedure on Oral dental Health in apparently healthy adult population -An assessor blind exploratory Randomized controlled study. | Indian Dental association and CCRAS-CARI Mumbai |
| 12. | Clinical Evaluation of Saptavimshatika Guggulu and Haridra Churna in the management of Type II Diabetes Mellitus | CARI Bhubaneswar RARI, Jaipur RARI, Mandi |
| 13. | Clinical evaluation of Nisha Amalaki and Chandraprabha Vati in the management of Type II Diabetes Mellitus (Madhumeha) | CARI, Guwahati RARI, Nagpur CARI, Delhi RARI, Ahmedabad |
| 14. | Clinical evaluation of Nisha Katakadi Kashaya and Yashada Bhasma in the management of Type II Diabetes Mellitus (Madhumeha) | ALRARI, Chennai RARI, Vijayawada NARIP, Cheruthuruthy RARI, Mandi |
| 15. | Clinical evaluation of Gokshuradi guggulu and Guduchi churna in the management of Madhumeha (Type II Diabetes Mellitus) | RARI,Gwalior |
| 16. | Clinical Evaluation of the Efficacy and Safety of Mamajjaka Ghanavati in Madhumeha (Type 2-Diabetes) | CARI, Bengaluru CARI,Bhubaneswar RARI,Lucknow |
| 17. | A Randomized Placebo Controlled Prospective Phase II Clinical Study of an Ayurvedic Coded Drug ‘ AYUSH-D ’ in the management of Type 2 Diabetes Mellitus as add on Therapy to Metformin (Collaborative) | RARI, Bengaluru 1. AIIMS, New Delhi 2. RAPA, Medical College, Mumbai RGGPGAC, Paprola |
| 18. | Efficacy of Ayurveda coded formulation Ayush D in the management of Type 2 Diabetes Mellitus-A prospective multi-center randomized double blind placebo controlled clinical trial (SMART 2.0) | CARI, Bengaluru SDM college of Ayurveda Hassan KSBMKAM, Belagavi |
| 19. | Efficacy of Ayurveda coded formulation Ayush 82 in the management of Type 2 Diabetes Mellitus –A prospective randomized double blind placebo controlled clinical trial (SMART 2.0) | RARI, Nagpur MGACHR, Wardha |
| 20. | Efficacy and safety of Ayurveda interventions for Diabetes: A systematic review and Meta-Analysis | CARI, Mumbai |
| Preclinical studies | | |
| 21. | Understanding Mechanistic role of CARAF and CAGHE as immunomodulatory and anti-cancer compounds against pre-clinical models of Leukemia, lymphoma, Myeloma, Lung and Breast cancer. | CARI, Mumbai in collaboration with ACTREC Mumbai |

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|-------------------------|--|---|
| 22. | Understanding Mechanistic role of Carctol-S as an immunomodulatory and anti-cancer formulation against Ovarian Cancer | CARI, Mumbai in collaboration with ACTREC Mumbai |
| 23. | Anticancer Potential and molecular mechanism of Rasa Sindhoor on ovarian cancer cells. | CARI, Kolkata in collaboration with CSIR – IICB Kolkata |
| 24. | Evaluation of cytotoxicity, Pharmacokinetics, Anticancer activity, detailed molecular mechanisms of Bhallatakadi Modaka in In-vitro (2D & 3D culture) and In-vivo tumor xenograft models. | CARI, Kolkata in collaboration with CSIR – IICB Kolkata |
| 25. | Anti-cancer activity of Chaulmoogra oil and Shwetha Sarshapa churna in the treatment of epidermal carcinoma of skin in experimental mice. | CSMCARI Chennai |
| 26. | Evaluation of anti-cancerous potential, in-silico pharmacological analysis and molecular mechanism of Kanchanar guggulu in ovarian cancer μ Tumor spheroids, and in in vivo models. | CARI, Kolkata in collaboration with CSIR – IICB Kolkata |
| 27. | Chemo preventive Effects of <i>Opuntia elatior</i> Fruits Against Chemotherapy-Induced Toxicity in Ovarian Cancer Pre-Clinical Models. | CARI, Kolkata in collaboration with CSIR – IICB Kolkata |
| 28. | Study of selected Ayurvedic herbs for their anti-angiogenic potential and toxicity profile in zebrafish embryo model for cancer management. | RARI, Gwalior |
| 29. | Assessment of Anti- Aging, Antimutagenic and cancer chemoprevention potential of Swarna Bhasma in <i>Drosophila Melanogaster</i> | CARI, Mumbai in collaboration with SSPU Pune |
| 30. | Preclinical study on the efficacy, safety, and toxicity of Swarna Prashan regimen as adjunct therapy in Pediatrics acute lymphoblastic leukemia | RRAP CARI, Mumbai in collaboration with ICMR-NIRRCH, Mumbai |
| 31. | Screening of medicinal plants on Anticancer Activity | RARI Pune |
| Other activities | | |
| 32. | International Cooperation with Office of Cancer Complementary and Alternative Medicine (OCCAM), National Cancer Institute (NCI). | |
| 33. | Setting up of Integrative oncology facility at Tata Memorial Hospital (TMH), Mumbai. | |
| 34. | Integration of AYUSH systems in the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) | |
| 35. | CCRAS has contributed to the development of Standard Treatment Guidelines on Management of Metabolic Disorders in Ayurveda System of Medicine. | |

**Research Studies undertaken by Central Council for Research in Homoeopathy
(CCRH)**

Research studies on Cancer:

Fundamental and Basic Research:

Ongoing:

1. Role of Silicea in cancer regression: A mechanistic study - Bose Institute, Kolkata, West Bengal.
2. Studies of homoeopathic medicines as nano-formulations in application to colon cancer therapy and insides into cancer cell death- JIS University, Kolkata.
3. Determination of the mechanism of action of clinically effective homoeopathic formulation in lung malignancies, Cochi University of Science and Technology.
4. Deciphering the molecular mechanisms of different homoeopathic remedies to overcome stemness in chemo-resistant triple negative breast cancer cells by targeting the miRNA circuitry: Phase 1 Approach- Jadavpur University, Kolkata.
5. Efficacy assessment of homoeopathic medicines on stratified epithelial cancer growth and gene expression profiles in cellular models: A multimodal approach- IEST, Shibpur, Howrah.
6. Identification of homoeopathic formulations with anti-cervical cancer and anti- HPV activity (phase II): Assessment of Berberis Aquafolium and Berberis vulgaris In-vivo-A Pilot Study Comparing Cancer Cells and Normal Pbmcs from Non-Malignant Individuals.- University of Delhi, Delhi
7. Molecular characterization of Homoeopathic Medical Impact on Cervical Cancer Progression-IEST, Shibpur

Concluded:

1. Green synthesis of silver Nanoparticles using various plant based Homeopathic Mother tinctures and evaluation of the efficacy of the Homeopathic drug capped Silver Nanoparticles as potential anti-bacterial, anti-oxidant, anti-inflammatory and anticancer agents; Indian Institute of Engineering Science and Technology, Shibpur
2. In Vitro Assessment of Homeopathic Potencies of Hydrastis canadensis on Hormone-Dependent and Independent Breast Cancer. Homeopathy 2020; 109(04): 198-206
3. Contribution of ROS p53 feedback loop in thuja induced apoptosis of mammary epithelial carcinoma cells. Oncology Reports 2014 Jan 24.(Bose Institute, Kolkata)
4. Calcarea carbonica induces apoptosis in cancer cells in p53-dependent manner via an immuno-modulatory circuit. BMC Complementary and Alternative Medicine 2013; 13:230 (Bose Institute, Kolkata)
5. Sulphur alters NFκB-p300 cross-talk in favour of p53-p300 to induce apoptosis in non-small cell lung carcinoma. International Journal of Oncology 2015 June 22. (Bose Institute, Kolkata)
6. Evaluation of Therapeutic Potential of Selected Plant-Derived Homeopathic Medicines for their Action against Cervical Cancer. (Delhi University) Homeopathy 2023; 112(04): 262-274.
7. Impact of homoeopathic medicines on Breast and Prostate cancer (AMITY University). In Vitro Assessment of Homeopathic Potencies of Hydrastis canadensis on Hormone-

Dependent and Independent Breast Cancer. Homeopathy. 2020 Nov;109(4):198-206. doi: 10.1055/s-0040-1709668. Epub 2020 Jul 1. PMID: 32610349.

8. "Identification of Homoeopathic Medicines with AntiCervical Cancer and AntiHPV Activity: Phase I :InVitro Study", Homeopathy 2023; 112(04): 262-274

Clinical Research

Ongoing:

1. A pilot study evaluating role of Homoeopathic medicine in non-small lung Cancer patients as adjuvant treatment to chemotherapy/ radiotherapy and correlating with Molecular Profiling (Department of Biotechnology, Ministry of Science & Technology, GoI, New Delhi), at AIIMS New Delhi.
2. Management of Chemotherapy and radiotherapy induced Oral Mucositis head and neck cancer with add on homoeopathy to standard care versus the standard care- A Randomized Controlled Clinical Trial, MAIDS, New Delhi.
3. A multicentric, double blind, randomized, placebo-controlled, phase III study to evaluate the role of potentised (tautopathy) form of chemotherapy in patients to determine the reduction in the pre-identified side-effects of non-Potentised Chemotherapy Drugs Cisplatin, Docetaxel, Paclitaxel, Carboplatin, Epirubicin, Gemcitabine, Cyclophosphamide and Adriamycin on cancer patients to enhance tolerance to chemotherapy regimen, Apollo Hospital and VS Hospital, Chennai.

Concluded:

1. Phase II study to assess the safety and efficacy of using potentised form of chemotherapy, Apollo Hospital, Chennai
2. Evaluation of homoeopathy on side effects of chemotherapy in cancer patients, at Kolkata, Marwari Hospital.
3. Clinical evaluation of homoeopathic medicines along with Iscador therapy in managing malignant diseases. CCRH. CR Studies series III, 2010, pg. 24-35.
4. Homoeopathic treatment as an add-on therapy for Pain Management in Cancer Patients: A Prospective, Randomized, Exploratory study (Dr. B.R.A. IRCH, AIIMS, New Delhi).

Research studies on Diabetes

Fundamental and Basic Research:

Concluded studies:

1. Pancreatic beta-cell regeneration: a novel anti-diabetic action of Cephalandra indica mother tincture. British Homoeopathic journal 1988; 77(3): 147-151.
2. Effect of homeopathic preparations of Syzygium jambolanum and Cephalandra indica on gastrocnemius muscle of high fat and high fructose-induced type-2 diabetic rats: Homeopathy. 2013 Jul;102(3):160-71.

Clinical Research:

Ongoing:

1. Efficacy of Syzygium jambolanum mother tincture in management of type II Diabetes mellitus: A double-blind, randomized, placebo-controlled trial.
2. Investigating the impact of Homeopathic therapy on Metabolic Control and Systemic Inflammatory Markers in Patients of Stage III & IV Periodontitis with Diabetes: A Randomized Multi-Arm Clinical Trial.

Concluded:

1. A prospective multi-centric open clinical trial of homeopathy in diabetic distal symmetric polyneuropathy. *Homeopathy* 2013;102(2):130-8.
2. Management and homoeopathic treatment of peripheral vascular disease in relation to diabetes mellitus. *CCRH Quarterly Bulletin*, 1995; 17(3&4):10-6.
3. *Rhus Aromaticus* in the management of Diabetes mellitus. *Clinical Research Studies-Series II*. New Delhi: CCRH; 2009:21-7.
4. Role of *Cephalandra indica Q* in the management of Diabetes Mellitus as an add-on medicine along with conventional anti diabetics. *Indian Journal of Research in Homoeopathy* 2008; 2(3):22-7.
5. Effects of Homoeopathic intervention in pre-diabetes (EHIP): An open label randomized controlled exploratory trial.
6. Practice, prescription habits, experience and perception of Indian homeopathic practitioners in treatment of diabetes mellitus: An online observational study. *Journal of Ayurveda and Integrative Medicine* 14 (2023) 100787
7. *Calendula mother tincture* vs normal saline for ulcer dressing as an add-on to Individualized Homoeopathic Intervention in the management of Diabetic Foot Ulcer: A Randomized Controlled Pilot Study. *Indian J Res Homoeopathy* 2020;14:233-41.
8. A Prospective Observational Study to Ascertain the Role of Homeopathic Therapy in the Management of Diabetic Foot Ulcer. *American Journal of Homeopathic Medicine* 2011; 104(4):166-76.
9. Efficacy of homoeopathic treatment for diabetic distal symmetric polyneuropathy: A multicentric randomised double-blind placebo-controlled clinical trial. *Explore (NY)*. 2020 May 22:S1550-8307(20)30163-4.

Research studies related to various types of Cancer by Central Council for Research in Unani Medicine (CCRUM)

- A study to evaluate of the anticancer potential of Unani Pharmacopoeial formulation, 'Dawa-ul-Kurkum' was conducted on human liver cancer cells and findings depict that the formulation is effective in restoring the damage at the genetic level due to cancer.
- Another study was done on delineating the Anti- Cancer potential and the mechanism of action of Unani medicinal formulation Itrifal-e-Aftimoon in Chronic Myelogenous Leukemia was carried and the formulation is effective as an adjuvant therapy with Imatinib for the better management of CML.
- A study was also to evaluate the antioxidant and anticancer effects of Unani Medicine (Qurs-e-Mafasil ladeed, Safoof-e Barang, UNIM-HC-I) against hepatocellular carcinoma (HCC). The in-vitro cytotoxicity assessment revealed that *Nigella sativa*, *Cuscuta reflexa*, and *Chicorium intybus* exhibited promising inhibitory effects on cancer cell proliferation with IC₅₀ values comparable to the standard drug.
- Phytochemical standardization and evaluation of anti-cancer and immunomodulatory activity of Unani formulation, Itrifal Ghudadi. IGaq significantly reduced cell viability in cervical, breast and oral cancer cell lines.
- A study is being was conducted on combining Unani formulations and nutraceuticals with standard chemotherapeutic agents (5-FU and OXP) and it was observed that the Unani formulations enhances anticancer efficacy in CRC while potentially reducing toxicity and resistance.
- The cytotoxic effects of the different Majoon Najah extracts showed promising effect against liver carcinoma
- A study conducted on novel Unani dispersible tablets was conducted and the results demonstrated that polyherbal formulation induces cell apoptosis

Research studies related to Diabetes mellitus:

- A study was conducted to compare the efficacy and safety of coded Unani formulation UNIM-221 with Metformin in the patients of Dhayābītus Sukkarī Qism-i Thāni (Diabetes mellitus Type II).
- The study drug was found safe and effective. Another validation study to evaluate the safety and efficacy of Qurs Ziabetus khas was conducted and the study drug was found safe and effective.
- Investigation on pharmacodynamic and pharmacokinetic interaction of Unani plants *Tinospora cordifolia* and *Eugenia jambolana* with hypoglycaemic drug.
- Assessment of the effect of Unani formulation loaded nanoparticle tablets against Streptozotocin-induced Diabetes.
- Structural characterization, pharmacokinetics, pharmacodynamic and herb-drug interactions of major constituents of compound Unani formulation for diabetes
- Novel Unani Medicine infused Organic Oil based in-soles for diabetic foot care
- Anti-diabetic and Immune-modulatory effect of Unani formulation "Safuf-i-Dhayabitus"
- Pharmacological Evaluation and Comparison of Anti-Diabetic Activity of the Novel Unani Formulation with Metformin In Experimental Model Of Diabetes

- Effect of Selected Unani formulation on oxidative stress in patients with type 2 diabetes mellitus a randomized double-blind placebo controlled clinical trial
- Comparative study of Sugar free formulation of Jawarish Zarooni Sada with its traditional formulation against for the treatment of Diabetic Nephropathy
- Role of poly-herbal formulation on the bone's ultrastructural, metabolic and biomechanical changes in Diabetic BALB/c mice

Detail of the Research/Project for diabetes and Cancer taken by Central Council for Research in Siddha (CCRS)

IMR Projects related to Cancer:

1. Evaluation of anticancer and Apoptosis-Inducing effect of Gowri Chinthamani Chenthuram (GCC) on human cancer cell lines
2. Clinical trial to evaluate the safety and efficacy of Siddha medicine nandhi mezhu in stage 1 and 2 breast cancer patients.
3. Another project entitled "SIDDHAR-ONCO: A Siddha Literary and Field-Based Cancer Research Study".

IMR Projects related to DM:

1. Evaluation of anti-diabetic activity of *Argyrea sericea* Dal zell against streptozotocin induced diabetes in Rat
2. Alternative therapy for Diabetic Retinopathy / cataract of *Fluggea virosa* in rats.
3. A pilot open single arm clinical trial to evaluate the efficacy of Sirupeelai Kudineer in Diabetic Nephropathy.
4. Observational Study to scientifically validate Siddha Diagnostic methods - Neerkuri, Neikuri with the prediction of disease prognosis using Machine learning Procedures and Early Diagnosis of Diabetes Mellitus using the Diagnostic Standards in Modern Medicine".
5. In-process standardization of Velvanga Parpam (VP) A classical Siddha drug and a pilot study to evaluate its safety and therapeutic efficacy in Madhumegam (Type II Diabetes mellitus)

EMR Projects related to DM:

Ameliorative potential of D5 Chooranam in Streptozotocin induced Diabetes Retinopathy.

List of ongoing Research projects on Cancer in Integrative Oncology at All India Institute of Ayurveda, (AIIA) New Delhi

| S. No. | Title | Status | Outcome |
|----------------------------------|--|-----------------------------|--|
| Extra Mural Research- EMR | | | |
| 1. | Clinical validation of synergistic effect of vardhman pippali rasayan along with conventional treatment after unravelling its complex molecular mechanism of action in Breast cancer: From Experimental model to Clinical trial in collaboration with AIIMS | Ongoing | Yet to conclude |
| 2. | Clinical Trail to Evaluate the safety and Efficacy of Siddha medicine Nandhi Mezahugu in Stage 1 &2 BREST Cancer Patients in collaboration with Central Council for Research in Siddha | Ongoing | Yet to conclude |
| Intra Mural Research- IMR | | | |
| 3. | An open-label, two-arm, exploratory randomised controlled trial to evaluate the effect of Vardhman pippali rasayan as an add-on therapy in the management of non-small cell Lung cancer in Collaboration with AIIMS. | Completed | Vardhman pippali rasayan was found to improve quality of life of lung cancer patients & was well tolerated by patients |
| 4. | Ayurveda Intervention for Chemotherapy induced Myelosuppression | In the process of approvals | Yet to start |
| PhD Studies | | | |
| 5. | A prospective observational cohort study on clinical presentation, Ayurvedic understanding, patient intentions, and treatment outcomes in Hepatobiliary Cancers and A clinical pilot study to assess the outcomes of Ayurveda Interventions in Hepatocellular Carcinoma. | Ongoing | Yet to conclude |
| Post Graduate Studies | | | |
| 6. | A prospective observational cohort study on clinical presentation, Ayurvedic understanding, patient intentions, and treatment outcomes in Oral Cancers | Ongoing | Yet to conclude |

Research studies related to the management of **Prameha/Madhumeha (Diabetes Mellitus)** through Ayurveda are being conducted at various departments under Post Graduate research programmes. These studies aim to evaluate the efficacy of Ayurvedic formulations,

Panchakarma procedures, dietary regulations and lifestyle interventions in improving glycemic control and reducing disease complications with minimal side effects. In addition to the above-mentioned research studies, an **Ayurvedic treatment protocol for the management of Prameha/Madhumeha (Diabetes Mellitus)** has also been developed based on classical Ayurvedic principles and research findings. The protocol includes **Ayurvedic medicines, Panchakarma procedures, dietary regulations (Pathya Ahara), and lifestyle modifications (Vihara)** aimed at improving glycemic control and addressing the root cause of the disease with minimal side effects.

The details of major research studies conducted in recent years are given below:

- **IMR Project**

| S. No. | Title | Conducted By- | Status | Drug Used |
|--------|---|--|---------|---|
| 1. | Evaluation the efficacy of diabetic specific diet and life style modification in comparison with ayurvedic Shodhan-Rasayan in the management of Madhumeha (Diabetes mellitus) | Dr. Raja ram Mahto | Ongoing | Gudmar Churna Nishamalki Churna Gokshura Churna Gokshrsdi Guggulu |
| 2. | Evaluate the correlation of changes in Nadi, Tongue and Face with Diabetes parameter among Diabetes (Type 2) patients- An Exploratory Study | Dr. Raja Ram Mahto Dr. Jonah S. Dr. Rama Kant Yadava | Ongoing | Triphaladi Kwath Nishakatakadi Kwath |
| 3. | Prevalance of Musculoskeletal Dysfunction in Patients of Prameha (Diabetes Mellitus Type 2) | Dr. Raja Ram Mahto | Ongoing | |

| S. No. | Research Protocol / Topic | Year | Conducted by (Doctor & Department) | Key Findings / Outcome | Medicine used in IPD/OPD |
|--------|--|-----------|--|--|---|
| 1 | A Conceptual study on Dwividhopkarniya Adhyaya of Acharya Vagbhatt and clinical study to assess the cumulative effect of Aptarana with Abhaya Ghan Vati and Pathya Ahara-Vihara on Santarpanotha Vyadhi w.s.r. to Sthula Pramehi (Diabesity) | 2019–2022 | Dr. Aishwarya – Department of Samhita Siddhanta | Ayurvedic diet regulation, lifestyle modification and Abhaya Ghan Vati showed improvement in symptoms of Diabesity and metabolic parameters. | Abhya Ghan Vati |
| 2 | Role of Rasa Sevan Karma (consumption order of tastes) of food in proper functioning of Jatharagni and its impact on post-prandial glycemia | 2019–2022 | Dr. Sheetal – Department of Samhita Siddhanta | Proper sequence of taste consumption improved digestive function and helped regulate post-prandial blood glucose levels. | |
| 3 | Ayurveda protocol for management of Prameha/Madhumeha with special reference to Type-2 Diabetes Mellitus using different dosage patterns | 2019–2022 | Dr. Kundan – Department of Kayachikitsa | Ayurvedic therapeutic protocol demonstrated improvement in blood glucose levels and clinical symptoms. | Nishakatakadi Kashya Mamajjaka Ghan vati Gokshuradi guggulu |
| 4 | Effect of Vaman Karma and Triphala Churna with Madhu on gut microbiota and metabolites in Prameha w.s.r. to Type-2 Diabetes Mellitus | 2019–2022 | Dr. Nishant Malhotra – Department of Panchakarma | Vaman karma with Ayurvedic intervention showed beneficial changes in gut microbiota and metabolic parameters. | Triphal Churna Guduchi Churna |
| 5 | Antidiabetic effect of Swarasa and hydro-alcoholic extract of Gojihva in Type-2 Diabetic Wistar Rats | 2018–2021 | Dr. Kajal – Department of Dravyaguna | Pre-clinical study demonstrated significant reduction in blood glucose levels in experimental models. | Gojihva Extract |

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| 6 | Efficacy of Aardra & Shushka Guduchi in management of Madhumeha (Type-2 DM) | 2018–2021 | Dr. Niranjana Ram – Department of SRPT | Aardra Guduchi ghanvati showed significant hypoglycemic effect and symptomatic improvement. | Guduchi Ghanvati |
| 7 | Comparative effectiveness of Ayurvedic management and conventional standard care in Gestational Diabetes Mellitus | 2018–2021 | Dr. Charu Sharma – Department of SRPT | Ayurvedic interventions along with standard care improved glycemic control and maternal health outcomes. | Nishamlaki Tab Sarvamehahara Kashya Ghana Vati |
| 8 | Cross-sectional study on the breakup model of Shatakriyakala in Prameha w.s.r. to Type-2 Diabetes Mellitus | 2018–2021 | Dr. Meenakshi Sharma – Department of Rog Nidan Evam Vikriti Vigyan | Study correlated Ayurvedic disease stages with clinical and biochemical markers of diabetes. | |
| 9 | Efficacy of Rohitakadi Churna along with Triphaladi Granules in management of Madhumeha | 2018–2021 | Dr. Mythri H.S. – Department of Kayachikitsa | Rohitakadi Churna along with Triphaladi Granules is more effective than Triphaladi granules | Triphaladi granules Rohitakadi churna |
| 10 | Study on Ojas and prevalence of Oja Kshaya in patients of Madhumeha | 2017–2020 | Dr. Durgesh Senthia – Department of Ayurveda Samhita and Siddhanta | Study highlighted association between Oja Kshaya and severity of Madhumeha. | |
| 11 | Study of Swabhavoparam Vada (Nidana Parivarjana) in newly diagnosed Madhumeha | 2017–2020 | Dr. Pratigya Chauhan – Department of Ayurveda Samhita and Siddhanta | Avoidance of etiological factors showed improvement in disease progression and glycemic control. | Phalatrikadi Kwath |
| 12 | Study to assess Ojas Dushti in Madhumeha and evaluation using immunological marker IgG | 2017–2020 | Dr. Sidhartha Kumar – Department of Rog Nidan | Findings indicated correlation between Ojas Dushti and | |

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|-----|--|-----------|---|---|--|
| | | | Evam Vikriti Vigyan | immunological markers. | |
| 13 | Comparative clinical trial of Darvyadi Ghrita vs Darvyadi Kashaya in Vatapradhana Prameha | 2017–2020 | Dr. Asha Malviya – Department of Kayachikitsa | The administration of Darvyadi Ghrita in vata pradhan Prameha gives better result in subjective parameters.and Darvyadi Kashya mild significant reduction in FBS and PPBS | Darvyadi Ghrita Darvyadi Kashya |
| 14 | Efficacy of D4 combination along with ongoing conventional medicine in Type-2 Diabetes Mellitus | 2017–2020 | Dr. Dimpal Gill – Department of Kayachikitsa | Adjunct Ayurvedic therapy improved glycemic control when used with conventional treatment. | D4 Combination (Jamunbeej, Gudmar patra,Giloy,Ngar motha churna) |
| 15. | A Comparative clinical trial on the efficacy of Vidangadi Loha and Phalatrikadi Ghanvati with and without the primer administration of Virechan Karma in Madhumeha | 2021-2024 | Dr. Kartar Singh Bansal (Ph.D) | The ayurvedic regimen administrated to Group B presents a promising avenue for enhancing the treatment of Madhumeha (obese diabetic) | Vidangadi loha Phalatrikadi Ghanvati |

Annexure-VI

The details of project funded for research on Cancer & Diabetes under Research and Innovation in Ayush component of Ayurgyan Scheme:

| S.No. | Name of Institution | Title of Project | State | Amount approved |
|--------------|--|--|--------------|------------------------|
| 1 | Department of Veterinary Pharmacology & Toxicology, College of Veterinary & Animal Sciences (CVAS), Mannuthy, Kerala Veterinary and Animal Sciences University, Pookode, Wayanad | Pharmacological evaluation of homoeopathic drugs in breast cancer cell lines. | Kerala | Rs.52,34,697/- |
| 2 | National Institute of Technology, Rourkela, Odisha. | Gomutra Ark as a potent anti-cancer agent for the treatment of Oral Squamous Cell Carcinoma - Molecular Mechanism underlying its anti-cancer effect. | Odisha | Rs.58,80,780/- |
| 3 | Asthagiri Herbal Research Foundation Perungudi Industrial Estate Perungudi Chennai | Process Standardization and exploration of novell Saarapathangam Preparation for its role in the management of oropharyngeal cancer | Tamil Nadu | Rs.68,74,110/- |
| 4 | SDM College of Medical Sciences & Hospital, Manjushree Nagar, Sattur, Dharwad, Karnataka | Effect of Yoga on Endothelial Function and Vascular Aging in Individuals with Type-2 Diabetes (Yoga V-Age): A Randomized Controlled Trial | Karnataka | Rs. 42,36,898/- |

The details of project funded for research on Cancer & Diabetes under center of excellence component of Ayurswasthya Yojana

| Name of Organization/Institute | State/UT | Title of the Project | Fund released in Rs. | Approved amount in Rs. |
|--|-----------------|--|-----------------------------|-------------------------------|
| CoEs with Cancer project | | | | |
| Tata Memorial Centre, (TMC) Mumbai | Maharashtra | Centre of Excellence for Discovery and Development of Ayush Medicine for Cancer Care | 3,94,10,182/- | 9,06,91,262/- |
| Arya Vaidya Sala, Kottakkal | Kerala | Setting up CoE in Cancer Research Arya Vaidya Sala, Kottakkal | 5,31,56,136/- | 6,64,45,170/- |
| CoEs on Diabetes Mellitus | | | | |
| Indian Institute of Science, (IISC) Bangalore | Karnataka | Centre of Excellence in Diabetes and Metabolic Disorders | 7,63,93,188/- | 9,99,96,500/- |
| Central Ayurveda Research Institute (CARI) Bengaluru | Karnataka | Centre of Excellence in Research and Clinical Services for Madhumeha (Diabetes Mellitus) | 7,24,80,400/- | 7,24,80,400/- |