



PANKAJAKASTHURI[®]
for life. for ayurveda

Bridging Tradition and Innovation
through Research

Revitalizing Ayurveda

About us

Pankajakasthuri Ayurveda Medical College & PG Centre under Pankajakasthuri Herbal Research Foundation, or simply Pankajakasthuri, is one of the most credible and prominent names in Ayurvedic research in India. The Pankajakasthuri was established in 1988 as the realization of the enduring vision of Padma Shri Dr. J. Hareendran Nair, who believed that Ayurvedic concepts should adapt to evolving lifestyles. The research and development facilities, which were naive at the inception of Pankajakasthuri, have grown significantly, with the R&D center adopting modern principles, ideologies, and standards in its methodologies. By investing in recognized and skilled human resources, adopting best practices, and embracing technology, Pankajakasthuri has transitioned from a makeshift R&D center into one of the most reputable and reliable Ayurvedic organizations in the country.



Leadership overview

Dr. J. Hareendran Nair's passionate desire to bring the benefits of Ayurveda to a global audience has led to the publication of over 30 research articles in various international and national journals. With extensive experience in developing novel herbal products rooted in traditional Ayurvedic wisdom, he has formulated and standardized more than 100 patented and proprietary Ayurvedic products.

He was honored with the **State's Best Doctor Award in 2007** by the Government of Kerala. In 2008, he received the **Ayurveda Ratanam Award** from the National Society of Ethnopharmacology for his outstanding achievements in Ayurveda. In 2009, he was awarded the **MSME National Award** for Research & Development in recognition of his remarkable contributions to Ayurvedic services worldwide.

In 2012, the Government of India bestowed upon Dr. J. Hareendran Nair, Managing Director of Pankajakasthuri Ayurveda Medical College Hospital and the Pankajakasthuri Group of Institutions, the prestigious **Padma Shri Award** for his exceptional contributions to the field of Ayurveda. Dr. Nair's dedication to promoting and advancing Ayurvedic medicine has had a profound impact on healthcare both in India and internationally. The Padma Shri Award highlights Dr. Nair's commitment to integrating traditional Ayurvedic knowledge with modern scientific approaches, thereby enhancing patient care and advancing the field of Ayurveda.





Mission

Our mission is to advance the frontiers of herbal medicine through cutting-edge research, innovation, and collaboration. By leveraging interdisciplinary scientific approaches, state-of-the-art facilities, and a commitment to ethical practices, we aim to develop evidence-based herbal formulations/practices that enhance human health and well-being.

Vision

At Pankajakasthuri R&D Centre, we envision a world where traditional herbal knowledge seamlessly integrates with modern scientific methodologies to provide safe, effective, and sustainable healthcare solutions for the betterment of mankind. Through our research endeavours, we strive to bridge the gap between ancient wisdom and contemporary healthcare needs.

Core Values

- **Excellence:** We uphold the highest standards of excellence in research, adhering to rigorous scientific methodologies and quality control measures.
- **Integrity:** Our research is guided by principles of transparency, honesty, and ethical conduct, ensuring credibility and trustworthiness in all our endeavours.
- **Innovation:** We foster a culture of innovation, encouraging creativity and exploration in the pursuit of novel traditional/herbal-based solutions for healthcare challenges.
- **Respect:** We deeply respect traditional knowledge systems and indigenous practices/protocols, acknowledging the invaluable wisdom of generations past.
- **Collaboration:** Collaboration lies at the heart of our approach, as we actively engage with academic institutions, industry partners, and communities to foster knowledge exchange and synergy.

Areas of Focus

- **Botanical Exploration:** Our researchers explore diverse medicinal plant species, tapping into their pharmacological properties and therapeutic potential.
- **Phytochemical Analysis:** Through advanced analytical techniques, we identify and characterize bioactive compounds present in medicinal plants, laying the groundwork for formulation development.
- **Clinical Research:** Conducting clinical trials to evaluate the efficacy and safety of Ayurvedic treatments for various diseases and conditions.
- **Pharmacological Research:** Investigating the pharmacological properties of Ayurvedic herbs and compounds, identifying their active constituents and mechanisms of action.
- **Toxicology:** Conducting acute, sub-chronic, and chronic toxicity studies in animal models to determine the safety profile of herbal formulations.
- **Formulation Development:** Developing and evaluating newer dosage forms and delivery systems for herbal phytopharmaceuticals.
- **Nano-nutraceuticals:** Designing nano-encapsulated dietary supplements that improve the bioavailability of nutrients, enabling more effective prevention and management of chronic diseases.
- **Bioavailability and Bioequivalence:** Measuring the extent and rate at which the active ingredients of a drug reach systemic circulation, using techniques like blood sampling and HPLC analysis and Comparing the bioavailability of a test product (e.g., a new formulation) to a reference product to ensure they have similar pharmacokinetic profiles.
- **Basic Research:** Exploring the underlying principles of Ayurvedic concepts, such as doshas, agni, and srotas, through scientific inquiry.
- **Herbal Cultivation and Standardisation:** Developing sustainable practices for the cultivation and standardisation of Ayurvedic herbs, ensuring their quality and purity.
- **Educational Programs:** Offering educational programs and training courses to promote awareness and understanding of Ayurveda among healthcare professionals and the general public.

Progressive policies fueling ayurvedic research and innovations



Special policies

**Modern techniques and
mechanisations**

Clinical studies

**Evidence creation by
scientific studies**

**Standardisation of
raw materials/formulations**

Four major pillars followed in the R&D department for herbal drug discovery process to get worldwide acceptance



Safety



Efficacy



Quality



Stability

R&D Department

Phytochemistry/Analytical

Microbiology Division

Formulation

Preclinical

Clinical

Phytochemistry/Analytical

Services

- Phytochemical investigations
- Bioassay guided isolation
- Identification of bioactives
- Analytical studies
- Structure Elucidation
- Invitro studies

Microbiology Division

Services

- Microbial plate counts
- Antimicrobial studies
- Microbial quality control
- Herbal antibiotics
- Microbial shelf life study
- Analysis for specific organisms





Formulation

Services

- Preformulation/formulation
- Standardisations
- Pilot plants studies
- Formulas
- Shelf life studies

Preclinical

Services

- Toxicology studies
- Pharmacology studies
- Pharmacokinetics/Pharmacodynamics studies
- Antidiabetic studies
- Hepatoprotective
- Analgesic & Anti-inflammatory





Clinical

Services

- Clinical studies
- Operations
- Regulatory submissions
- Documentation
- Biostatistics
- Medical writing

Modern/Novel Drug Delivery Developed by R&D Department



Injectable



Herbo-Mineral
Antivirals



Herbal
Antibiotics



Nasal Drops



Vaginal Wash



Herbal
Nano-Capsules



Therma Gel



Nutraceutical
Powder

Major Products

Developed

**Breathe Eazy
Granules**



Orthoherb Tablets



Orthoherb Oil



**Orthoherb Joint
Pain Relief Cream**



Anticid Liquid



Central Research Facility (CRF)

R&D centre



Highlights of R&D Centre

Interdisciplinary Expertise: Our Herbal Research Centre boasts a team of experts from diverse fields including botany, phytochemistry, pharmacology, chemistry, microbiology and traditional medicine. This interdisciplinary approach ensures comprehensive exploration and understanding of herbal remedies.

State-of-the-Art Facilities: Equipped with cutting-edge laboratories, greenhouse facilities, and advanced analytical instruments, our Centre provides an ideal environment for conducting high-quality research on medicinal plants.

Collaborative Partnerships: We foster collaborations with leading academic institutions, pharmaceutical companies, and healthcare organisations to facilitate knowledge exchange, research synergy, and translation of research findings into practical applications.

Ethnobotanical Documentation: Our Centre is dedicated to preserving and documenting traditional knowledge related to medicinal plants, collaborating with indigenous communities and herbal practitioners to safeguard this invaluable cultural heritage.

Quality Control Standards: We adhere to stringent quality control standards throughout the production process, ensuring the safety, purity, and potency of our herbal products through rigorous testing and standardisation protocols.

Community Engagement: Committed to social responsibility, our Centre actively engages with local communities, providing education, training, and economic opportunities related to sustainable cultivation and utilisation of medicinal plants.

Innovative Formulation Development: Leveraging modern pharmaceutical techniques alongside traditional wisdom, our researchers develop innovative herbal formulations with enhanced efficacy, safety, and bioavailability.

Preclinical and Clinical Research: From in vitro assays to human clinical trials, our Centre conducts comprehensive research to validate the safety, efficacy, and mechanisms of action of herbal remedies, contributing to evidence-based healthcare practices.

Global Reach: With an international network of collaborators and research partners, our Centre extends its impact beyond borders, contributing to the global advancement of herbal medicine and fostering international cooperation in healthcare research.

Public Outreach and Education: Through workshops, seminars, and outreach programs, we strive to raise awareness about the therapeutic potential of medicinal plants, promoting informed decision-making and empowering individuals to integrate herbal remedies into their healthcare practices.

Facilities



**Technical/
Lab Facilities**



**Administration/
Secretarial Facilities**



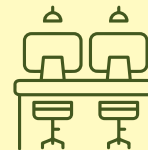
**Advisory and
Mentoring Support**



**Network Connections/
Linkages**



**Fund
Support**



**Infrastructure/
Co-Working Space**



**Portfolio
Support**

Scientific Social Responsibility Lab Facilities

Under the R&D Division

Scientific social responsibility lab facilities in the context of an herbal research institute involve the commitment to conducting research that benefits society while considering ethical, environmental, and societal implications. Scientific social responsibility lab facilities are about building synergies among all stakeholders in our scientific knowledge community and also about developing linkages between science and society. Lab facilities in such an institute would be geared towards conducting rigorous scientific research on herbal products, medicines, and treatments, with a focus on benefiting society at large.



Training-cum-Production Centre

Common Facility Centre



Training-cum Production Centre

Common Facility Centre in our institute serves as a hub of innovation, providing infrastructure for advanced research, standardization, and quality control of herbal formulations. It enables collaborative research, facilitates herbal extraction and processing, and accelerates product development from concept to commercialization. By offering shared resources, it fosters modern research, supports regulatory compliance, and acts as an incubation center for startups, driving innovation and growth in the herbal industry.

Seeking Excellence

- Establishment of Govt./Industry Sponsored COEs
- Govt. Funded Projects
- Development of Commercial Processes/Technologies
- MoUs with Academic Institutes/Govt. Organisations/Industries

Research at a Glance

R&D Projects

- 5 Ongoing Govt. funded R&D Projects
- 30 Ongoing industry funded R&D Projects
- 32 Completed industry funded R&D Projects

Research Facilities

- State-of-the-art Central Research Facility
- Well-qualified Faculties
- High Performance Computational Facilities

Patents and Publications

- Total number of Publications: 31
- Total number of patents filed in the last 3 years: 4

Preclinical and Clinical studies

- CCSEA approved Institutional Animal Ethics Committee (IAEC)
- IAEC approved animal studies: 15
- DHR approved Independent Ethics Committee (IEC)
- CTRI registered clinical study in respiratory diseases, joint disorders, lifestyle associated disorders, gastrointestinal problems, etc.: 18.

DiabetEaze Powder: The study "Randomized Clinical Study to Evaluate the Effect of DiabetEaze Powder in Nutritional Management of Pre-Diabetes and Type 2 Diabetes Mellitus" is crucial in exploring a targeted nutritional intervention that could help diabetic individuals manage their blood glucose levels more effectively, potentially reducing reliance on medications and improving overall health outcomes.

Thyroherb Tablet: The study "A Randomised Open Clinical Trial to Evaluate the Efficacy of Thyroherb Tablet in the Management of Primary Hypothyroidism" is important as it aims to assess a potential herbal treatment for primary hypothyroidism, offering an alternative or complementary therapy that could improve thyroid function and quality of life for patients with this condition.

Breathe Eazy Excel: The study "A Single Arm Clinical Study to Evaluate the Efficacy of Pankajakasthuri Breathe Eazy Excel Powder in Managing Various Respiratory Disorders" is significant for R&D as it demonstrates the potential of a natural, evidence-based formulation in effectively addressing respiratory conditions, supporting the innovation and development of targeted herbal therapies in respiratory care.



Collaboration with the Government Bodies

AYUSH (Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homoeopathy)

- **Research Funding and Support:**
Collaborating with AYUSH for funding research projects focused on validating traditional Ayurvedic formulations, developing new therapeutic applications, and standardising herbal medicines.

Department of Science and Technology (DST)

- **Innovative Research Projects:**
Partnering with DST to drive innovative research in the areas of herbal drug development, nanotechnology in Ayurveda, and biotechnology applications in herbal medicine.

Scientific assessment on Ethno-Dermatological plants used by the Malayali tribal community of Tamil Nadu- DST-SHRI, Govt. of India funded project

Through this project, a comprehensive standardisation and technological framework have been developed to conserve and preserve the medicinal knowledge of the indigenous Malayali tribe, specifically focusing on their traditional methods for treating dermatological problems especially wounds and burns. This initiative has led to the creation of two advanced topical formulations:

- A topical wound and burn healing cream.
- A topical burn healing gel.



Collaboration with Academic & Research Institutes

Tropical Botanic Garden and Research Institute (TBGRI)

- **Biodiversity Research:**
Collaborating with TBGRI to explore and document the medicinal properties of tropical plants, contributing to the discovery of novel bioactive compounds.
- **Phytochemical Studies:**
Conducting joint phytochemical and pharmacological studies on indigenous plants, focusing on isolating and characterising active compounds.

Rajiv Gandhi Centre for Biotechnology (RGCB)

- **Molecular Biology and Genomics:**
Partnering with RGCB to explore the genetic and molecular basis of the therapeutic effects of Ayurvedic formulations.

CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST)

- **Interdisciplinary Research:**
Collaborating with CSIR-NIIST on interdisciplinary projects that integrate chemistry, biology, and material science to innovate in herbal drug formulation and delivery systems.



Amala Cancer Centre

- **Cancer Research:**
Collaborative research on the use of Ayurvedic formulations as adjunct therapies in cancer treatment, focusing on enhancing the efficacy and reducing the side effects of conventional treatments.





Collaboration with Industry

Pankajakasthuri Herbals India Pvt Ltd

- **Product Development:**
Collaborating on the development of new herbal products, utilising Pankajakasthuri's extensive experience in herbal medicine and traditional knowledge.
- **Commercialisation:**
Joint efforts to commercialise research outputs, bringing innovative herbal formulations to market.
- **Quality Control and Standardisation:**
Partnering to ensure that all products meet high standards of quality, efficacy, and safety, adhering to both traditional principles and modern scientific standards.

CARe KERALAM (Confederation for Ayurvedic Renaissance-Keralam Limited)

- **Research and Development:**
Collaborating on R&D projects focused on developing and validating new Ayurvedic formulations, with a strong emphasis on scientific rigor.
- **Standardisation and Certification:**
Working together to standardise Ayurvedic products and processes, potentially leading to certification and wider acceptance in both domestic and international markets.



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