I. ADMINISTRATIVE REPORT

1. Staff pattern/staff in position/ vacant post as per current redeployment with the detailed fabrication of grade-wise cadre format given below

S. No.	Name of the Sanctioned post	No. of Posts Sanctioned	Name of the person working against the post	No.of posts vacant	Sex M/F	Whether SC/ST OBC	Remarks
1.	Assistant Director (Pharmacology)	01	-	01	-	-	Due to Superannuation of Dr. R. Ilavarasan on 31.07.2024
2.	Assistant Director (Biochemistry)	01	Dr. S. Chitra Institute In-charge	-	F	OBC	Taken over charge as Institute In-charge w.e.f 01.08.2024
3.	Assistant Director (Chemistry)	01	-	01	-	-	Vacant from 08.02.2023. due to transfer of Dr.CH.Venkata Narasimhaji, A.D (Chem.)
4.	Research Officer (Chemistry)	03	1. Dr. Vinod Kumar Thallada	-	M	EWS	---
			2. Dr. Kousik Ghosh	-	M	OBC	---
			-	01			Vacant from 07-07-2021
5.	Research Officer (Toxicology)	01	-	01	-	-	Vacant from 05.09.2016
6.	Research Officer (Botany)	01	Sh. Vishnu Walsan. K	-	M	UR	---
8.	Research Officer (Ayurveda)	02	1. Dr. G. Kusuma	-	F	UR	---
			2. Dr. Soumya M.C.	-	F	OBC	---
9.	Research Officer (Pharmacology)	01	Dr. R. Arunadevi	-	F	SC	---
11	Research Officer* (Microbiology)	-	Dr.Swamy CT	-	M	OBC	---
12.	Assistant Research Officer (Chemistry)	02	1. Sh. M. Prathapa Reddy	-	M	UR	---
			-	01	-	-	Due to the Resignation of Sh. Kurra Siva Durga on 01.10.2024
13.	Assistant Research Officer (Pharmacognosy)	01	Sh. C. Prem Kumar	-	M	UR	---

14.	Assistant Research Officer (Pharmacology)	03	1. Smt. M. Thenmozhi	-	F	OBC	---
			2. Ms. N. Monika		F	OBC	---
			3. Dr. Kanne Chowdeswari Haritha Yadav		F	OBC+ PWD	---
15.	Assistant Research Officer* (Biotechnology)	-	Sh.Ravi Prakash Shaliwal	-	M	OBC	---
16.	Research Assistant (Chemistry)	05	1. Smt. B Maheswari		F	OBC	---
			2. Sh. V. Naresh		M	OBC+ PWD	---
			-	03	-	-	Vacant from 1) 1.12.2016 due to superannuation 2) 5.09.2016 Due to redeployment 3) 1.12.2021 due to transfer
17.	Research Assistant (Pharmacology)	01	-	01	-	-	Vacant from 05.09.2016
18.	Research Assistant (Botany)	02	Dr.Akansha Pandey	-	F	UR	---
			-	01	-	-	---
19.	Research Assistant* (Biochemistry)	-	Dr.Anshu Wali	-	F	UR	---
20.	Office Superintendent	01	Smt. Lakshmi Nair S.	-	F	UR	---
21.	Assistant*	-	Smt. B. Radha Rani	-	F	UR	---
22.	Statistical Assistant	01	-	01	-	-	Vacant from 05.09.2016 (redeployment)
23.	Library Information Assistant	01	-	01	-	-	Vacant from 16.11.2019 (due to transfer to Hqrs)
24.	Stenographer(Gr-I)	01	Smt. E. Nagalakshmi	-	F	UR	---
25.	Laboratory Technician (Chemistry)	03		03	-	-	1. One Post vacant from 01.03.2021 (due to superannuation) 2. One Post vacant from 30.01.2021 (due to promotion) 3. One Post Vacant from 2016

26.	Laboratory Technician (Pharmacology/ Toxicology)	03	-	03	-	-	3 Vacant from 05.09.2016 (redeployment)
27.	Laboratory Technician (Pharmacognosy)	01	-	01	-	-	1 Vacant from 05.09.2016 (redeployment)
28.	Upper Division Clerk	03	1. Sh. J. Sampath Kumar (On Deputation)		M	OBC	---
			2. Sh. B. Balaji		M	OBC	---
			-	01			1Vacant from 05.09.2016 (redeployment)
29.	Lower Division Clerk/General Duty Assistant	03	-	03	-	-	1. Vacant from 22.11.2016 2. Vacant from 2009 3. Vacant from 2010
30.	Laboratory Attendant	05	1. Smt. C. Shakila		F	SC	---
			2. Sh. Raghul Gandhi		M	OBC	---
			-	03	-	-	1. One post vacant from 10.02.2023. Due to the transfer of Smt. Neetu Shivhare to RARI, Nagpur 2. One post vacant from 05.09.2016 due to transfer of staff to CRI Siddha 3. November 2010 due to bifurcation of Siddha from CCRAS.
31.	Animal Attendant	03	-	01	-	-	Due to the Superannuation of Mr.S.Ravichandran on 31.05.2024
			-	02	-	-	2 Vacant from 05.09.2016 (redeployment)
32.	Driver	01	-	01	-	-	Vacant from 05.09.2016 (redeployment)

33.	Safaiwala	02	Sh.R. Loganathan	-	M	SC	---
			-	01	-	-	Vacant from 05.09.2016 (redeployment)
34.	Animal Attendant cum Sweeper	01	-	01	-	-	Vacant from 05.09.2016 (redeployment)
35.	Pharma Attendant/Labourer	01	-	01	-	-	Vacant from 05.09.2016 (redeployment)
36.	Attendant	02	-	02	-	-	2 Vacant from 05.09.2016 (redeployment)
37.	Peon	02	-	02	-	-	2 Vacant from 05.09.2016 (redeployment)
	Total	**59**	**-**	**37**	**-**	**-**	**-**

*Research Officer (Microbiology), Assistant Research Officer (Biotechnology), Research Assistant (Biochemistry), and Assistant posts mentioned above do not pertain to the sanctioned staff pattern of the Institute and have been adjusted against the vacant posts.

2. No. of staff according to group

S. No.	**Group**	**Number of staff**						**Whether the roster is maintained or not**
Category		General	OBC	SC	ST	Others (EWS)	Total	
1	A	02	04	01	--	01	08	
2	B	07	06	-	--	--	13	
3	C	--	03	02	--	--	05	Roster is being maintained at CCRAS
4	D	--	--	--	--	--	--	
Total		**09**	**13**	**03**	**--**	**01**	**26**	

3. Expenditure

S. No.	Components	S. T. Category	Others	Total
1.	Male components	Nil	1108024	1108024
2.	Female components	Nil	1933994	1933994

4. Brief report on the infrastructure of the Institute

i. About the Institute

CSMCARI, Chennai was established in 1963 in IMPCOPS, Chennai, with the motive to study the phytochemical aspects of medicinal plants in and around the city. Later, Central Council for Research in Indian Medicine and Homeopathy took over this Institute as a grant-in-aid. In 1979, this Institute became a part of Central Council for Research in Ayurvedic Sciences (formerly Central Council for Research in Ayurveda and Siddha). This Institute had diversified its activities to drug standardization besides phytochemical studies. This Institute concentrates on formulating SOP and drug standardization of medicines belonging to Ayurveda. This is the only institute that has been extended with a license as a Drug Testing Laboratory (DTL) for testing of Ayurveda and Siddha drugs by the Drug Controller of Tamil Nadu (Indian System of Medicine). This is the first Institute under the Ministry of AYUSH accredited by National Accreditation Board for Testing and Calibration Laboratories as per ISO/IEC 17025:2017 (NABL, Quality Council of India under the Department of Science & Technology, Ministry of Commerce and Industry, Government of India. This Institute is recognized as Ph.D centre by the University of Madras.

ii. Building

This institute is housed in a land measuring 7200 sq. ft., which is adjacent to the existing building of CCRS (Central Council for Research in Siddha). In the year 2010, under the Notification of the concerned Ministry of the Government of India, the Siddha Council was bifurcated and started functioning separately, and subsequently, it started functioning in its individual building situated at Anna Hospital Campus, Arumbakkam in a full-fledged manner under the overall command and control of CCRAS.

iii. Departments

This Institute has Chemistry, Biochemistry, Botany/Pharmacognosy, Pharmacology, Microbiology, Pharmacy departments, and a Library section. Besides, the Institute has animal house facility approved by the Committee for Control and Supervision of Experiments on Animals (CCSEA), Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, to conduct animal studies. The laboratory is equipped with all the required sophisticated instruments/equipment to carry out the studies.

5. Resources generated from Laboratory/Library/Sale, etc. during the year 2024-25

S. No	Section	Amount	Remarks
1.	Testing charges	420500.00	Transferred to the council A/c. No. 36506882797 through Remitted on 26.03.2025, 26.03.2025, 29.03.2025 and 05.02.2025 respectively
2.	Sales of books	7615.00	
3.	Guest House	12250.00	
4.	Disposal of Cartons (Swach)	4738.00	
5.	Intern training	38000.00	
	Total (A)	**483103.00**	
6.	**IMR Commercial A/c Interest (B)**	188.00	
7.	Auction of Scraps **(C)**	237979.00	
	Total (A)+(B)+(C)		
	Total	**721270.00**	

6. Details of Budgetary provision to the Institute during the reporting period (24-25)

S. No.	Component/ Head	Budget allocated (Rs. in Lakhs)	Budget Re-allocated (Rs. in Lakhs)	Funds received (Rs. in Lakhs)	Actual expenditure (Rs. in Lakh)
1.	Pay and allowances	450	342	341.67	341.67
2.	Wages	1.5	1.31	1.31	1.31
3.	TA (Domestic)	4.5	3.74	3.74	3.74
4.	O/E	65	65	65	65
5.	OAE	1.5	1.31	1.31	1.31
6.	P.S	62	56.08	56.08	56.08
7.	Research Activities	16	18	18	18
8.	Swachhta Action Plan	2	1.5	1.5	1.5
9.	Seminar and Conference	3	2.44	2.44	2.44
10.	Fuel & lubricants	0.50	0.44	0.44	0.44
	Total	**606**	**491.82**	**491.49**	**491.49**

7. **List of Institute Scientific Advisory Committee & Institute Ethical Committee**

This Institute does not have a Scientific Advisory Committee separately.

The Institute has a CCSEA-approved Institutional Animal Ethics Committee.

Members of IAEC

1. Dr. S. Chitra - Scientist In-charge of Animal house facility, Chairperson
2. Dr. P. Kumarasamy - CCSEA Main nominee
3. Dr. A.R. Vijayakumar - Scientist from outside the Institute
4. Dr. R. Nandhakumar - Socially aware nominee
5. Dr. U. Mani - Link Nominee
6. Dr. R. Aruna Devi - Member Secretary & Veterinarian
7. Mr. C. Prem Kumar - Scientist from a different discipline
8. Mrs. M. Thenmozhi - Scientist from a different biological discipline
9. Dr. K.C. Haritha Yadav- Biological Scientist

8. Major pending issues related to the Institute

This Institute is an NABL ISO/IEC/17025:2017 accredited, and steps are being initiated for getting GLP for the animal house. Filling up the vacant posts of the Institute is essential for the smooth and effective functioning. Hence, the vacant posts of Laboratory Technician, Laboratory Attendants, Research Assistants, and Research Officer may be filled up at the earliest.

9. Library

(i) No. of books available up to the previous year: 1688

(ii) No. of books purchased during the reporting year: 73

II. TECHNICAL REPORT

1. CHEMISTRY

1.1 Standardization of raw drugs

1. *Chromolaena odorata* (L.) - **03 Sets**
2. *Hyptis suaveolens* (L.) Poit.- **03 Sets**
3. *Commelina benghalensis* (L.)- **03 Sets**
4. *Cipadessa baccifera Miq*
5. *Phyllanthus maderaspatensis* Forssk. - **03 Sets**
6. *Scaevola taccada* (Gaertn.) Roxb
7. *Nervilia concolor* Schltr- **03 Sets**
8. *Pupalia lappacea* (L.) Juss
9. *Phytolacca acinosa* Roxb.
10. *Ventilago madraspatana* Gaertn- **02 Sets**

1.2 Standardization of formulation (finished product)

1. Ayush-64 (**03 batches**)
2. Under IMR Project: **"Development of quality standards & SOP with marker-based analysis and shelf-life study of four medicinally important classical ayurvedic formulations"**

   Four samples, each three batches, were completed.

i. Palasabijadi Churna
ii. Vidangadi Churna
iii. Brahmi Vati–Buddhivardhak
iv. Dhatakyadi Churna

1.3 DRUG STANDARDIZATION RESEARCH (2024-25)

1.3.1 Brief resume of the work carried out since inception, indicating highlights and distinctions on the work done

1. Preliminary standards were worked out for more than 450 formulations contained in the Ayurvedic Formulary of India Part I, Govt. of India.
2. Details of standardization of more than 75 compound formulations completed.
3. Shelf-life studies of more than 100 formulations carried out
4. Physico-chemical data on more than 400 single drugs completed.
5. Preliminary standardization of more than 150 formulations of Ayurvedic Formulary Part II completed so far.

1.3.2 Details of studies carried out since inception

S.No.	Studies on	No. of Drugs/Finished products/Completed
1	Single drugs	More than 400
2	Finished products	More than 200
3	Other aspects Shelf-life studies	More than 100

1.3.3 NABL Activities

- NABL internal audit on 24-07-24 and 25-07-24.
- Management Review Meeting (MRM) conducted on 29-07-24.
- NABL Reassessment desktop audit completed in October 2024.
- The following tests were completed for various samples under NABL.
- NABL Reassessment audit on 11-01-25 & 12-01-25 and completed the same with two NCs, which were also cleared within one month.

(i) Proficiency testing (PT) Samples:

S. No.	Name of the sample	Parameters carried out
1.	24HER01P1(I) - Liquid	pH
2.	24HER01P1(I) - Powder	Loss on Drying (at 105 °C), Alcohol & water-soluble extractives, Total ash, and Acis insoluble ash
3.	24HER01(II)R1FM -Powder	Foreign matter
4.	24HER01(II)R1FM - Liquid	Heavy metal analysis (Pb, Cd, As & Hg)

(ii) Eyewitness tests

Sl. No.	Name of the sample	Parameters carried out
1.	NABL-TINO	Pesticide Residue Analysis
2.	NABL-24091007	Heavy metal analysis (Pb, Cd, As & Hg)
3.	NABL-BHAS	Assay of Iron
4.	NABL-KSHEE	Peroxide and Iodine value
5.	NABL-TINO	Aflatoxin analysis
6.	NABL-VAAS-21	
7.	NABL-KATO	TLC & HPTLC Fingerprint
8.	NABL-GUDU	Loss on Drying (at 105 °C), Total ash, Acid-insoluble ash, Alcohol & water-soluble extractives

(iii) Retesting done during the year 2024-25

S. No.	Name of the sample	Parameters carried out
1.	2409832	pH
2.	2409834	Fat content
3.	2409901	Refractive index

‘Z”-score calculation for different parameters of various ILC samples has been completed and communicated to respective participating laboratories.

(iv) Intermediate checks/calibration

Intermediate checks for ICP-OES, HPTLC, AAS, Flame photometer, Electronic weighing balance, pH meter, and Conductivity meter were carried out at the scheduled timings

(v) In-house Glassware Calibration

- In-house glassware calibration has been carried out for the glass, pipettes, volumetric flasks of various ranges, and the burette.
- The measurement uncertainty has been calculated for the above glassware.

(vi) Critical consumables

Critical consumables - Residue on evaporation, specific gravity for nitric acid and ethanol: pH, conductivity, test for sulphate, Chloride for distilled water: pH, and conductivity for the deionized water were completed.

1.4 IMR PROJECTS

1.4.1 Ongoing IMR Projects - 11

1. **Development of quality standards & SOP with marker-based analysis and shelf-life study of four medicinally important classical ayurvedic formulations**

The specific objective of this project is to establish the quality standards with SOP, marker-based analysis and shelf-life study of four medicinally important classical ayurvedic formulations by following API/GMP guidelines. As per the objectives, the following work has been completed.

Collection/procurement of all the ingredients (in three batches) from three geographical locations, after identification and/or authentication (if required) of the ingredients as per the pharmacognostical or botanical standards. Evaluation of physico-chemical parameters (as per API) of the ingredients. In-house preparation of four classical ayurvedic formulations (in three batches) based on procuring raw ingredients by following API/GMP guidelines.

2. **Isolation of Marker Compounds and Development of Marker Compound Library from four Selected Ayurvedic Medicinal Plants (*Kancanara, Asthisrnkhala, Puskara & Lajjalu*)**

The main aim of the present study is to identify, extract, and isolate the marker compounds and to develop a marker compound library. The following work was completed as per the objectives.

- Collected the useful parts of the plants from the field purchase of raw drugs, taxonomic identification, and its authentication was completed
- Identification of the marker compound in the plant material using TLC/HPTLC profile was completed.
- Extraction and isolation of marker compound – Ongoing.
- Purification and characterization of isolated marker compounds using various techniques – Ongoing.
- Development of marker compound library - Ongoing

3. **Phytochemical investigation of hydro-alcoholic extractives with different ratios of selected Kvatha formulations**

The objective of the project is to prepare a comparative profile of the hydro-alcoholic extracts of selected Kvatha formulations with different ratios by following API/GMP guidelines. The following work has been completed for the present study

- With the help of an initial literature survey, a review manuscript was prepared for selected Kvatha formulations and sent for approval from Headquarters.
- In-house preparation of selected Kvatha formulations was completed
- Preparation of hydro-alcoholic extractives with different ratios of these in-house prepared Kvatha formulations – Ongoing.
- Safety parameters such as microbial load, heavy metals, aflatoxins, and pesticide residue of these hydro-alcoholic extractives – Ongoing.
- Evaluation of physicochemical parameters and detailed phytochemical investigation of these hydro-alcoholic extractives – Ongoing.

4. **Comparative phytochemical evaluation of Ht. Wd. with small branches, leaf, and st. bark of common medicinal plants used in Ayurveda**

The present study aims to verify a suitable substituent for Ht.Wd, which is used in various Ayurvedic formulations like Dasamularista, Devadarista, Vataraktanaka Lauha, Dhanvantara Ghrita, etc. The point-wise details of objectives achieved for the present study are as follows:

- Received Plant Sample – *Prunus cerasoides* – Heartwood, Stem Bark, Small Branches
- Physicochemical Analysis (Loss On Drying, Total Ash, Acid Insoluble Ash, Water Soluble Extract, Alcohol Soluble Extract) of *Prunus cerasoides* – Heartwood, Stem Bark, Small Branches, Leaf was completed.
- Successive Soxhlet Extraction of *Prunus cerasoides* – Heartwood, Stem Bark, Small Branches, Leaf was completed.
- ICP-OES Analysis and IR Analysis of *Prunus cerasoides* – Heartwood, Stem Bark, Small Branches, Leaf was completed.
- Received Plant Samples- *Cedrus deodara* (Heartwood), *Pinus roxburghi (*Heartwood Stem Bark), *Caesalpinia sappan* (Heartwood small branches, stem bark, leaf) and *Pterocarpus santalinus (*Heartwood).

5. **Evaluation of Seasonal and Geographical Variation on Phytoconstituents/Marker Compounds in Selected Ayurvedic Medicinal Plants**

The present study aims to find the best collection time and Geographical source of a particular plant part for the abundance of Phytochemical constituents. The point-wise details of objectives achieved from the present study are as follows:

- Total number of plant samples received - 96 (4 Regions * 4 Plants = 16 Plant samples for each Season for 6 seasons).
- Physicochemical parameters for *Aegle marmelos*, *Alstonia scholaris*, *Azadirachta indica* for all seasons (72 samples) and *Nyctanthes arbortristis* for 5 seasons (20 samples) have been completed.
- ICP-OES multi element analysis of all 96 samples has been completed.
- UV-VIS estimation of Total Tannins, Total Phenols, and Total Flavonoids for all plants from 6 Seasons (96 Samples) was completed.
- HPTLC Quantification of Lupeol, Beta sitosterol in *Alstonia scholaris* for all 6 Seasons (24 Samples) completed.

- HPTLC profiling for *Alstonia scholaris* from all 6 Seasons (24 Samples) completed.
- FT-IR Analysis of *Aegle marmelos* and *Alstonia scholaris* for all 6 seasons completed.
- Soil Analysis for soil samples of all plants from 6 Seasons (90 samples) were completed.

6. **Development of Quality Standards, Estimation of Markers and Shelf-Life Study of Kvatha Curna Formulations**
   - Raw drugs collected/procured from three different geographical locations and Vasaguduchiyadi Kvatha Churna, Dhandhanyadi Kvatha Churna, Manjisthayadi Kvatha Churna, and Patolakaturohanyadi Kvatha Churna formulations – Ongoing.
   - Development of quality standards, SOP & COA for prepared Kvatha curna - Ongoing
   - Evaluation of physico-chemical parameters such as ash value, acid-insoluble ash, extractive values of aqueous and alcohol, LOD, and pH for raw drug materials and formulations – Ongoing.
   - Identification, authentication, and evaluation of botanical and pharmacognostical parameters using powder microscopy – Ongoing.
   - Safety parameters such as microbial load, heavy metals, aflatoxins, and pesticide residue to ensure the quality – Ongoing.
   - Phytochemical profiling of prepared kvatha curna formulations - Ongoing.

7. **Pharmaceutical Development and Standards for Formulation, AYUSH-64**
   - Evaluation of physico-chemical parameters such as ash value, acid insoluble ash, extractive values of aqueous and alcohol, LOD, and pH of all the ingredients – completed.
   - Identification and Authentication through the pharmacognostical/botanical standards – completed..
   - Completed the preparation of formulation of three batches based on the procurement of raw drugs, extracts /or raw ingredients and preparation of extracts in-house for the profiling of the raw drug material and finished formulation through HPTLC and other required techniques qualitatively and quantitatively.
   - Safety parameters such as microbial load, heavy metals, aflatoxins, and pesticide residues - completed

- A maximum of five different makes of AYUSH-64 market samples for QC analysis were carried out for comparative evaluation.
- Its accelerated shelf life studies were carried out.
- Compilation of the data to prepare the monograph is in progress.

8. Nutritional profiling, Estimation of markers of Balya Drugs of Ayurveda.

- Field collection by taxonomic identification and authentication from 3 different Geographical locations of the selected 15 plants – completed.
- Evaluation of Preliminary Phytochemical and Physicochemical parameters for the selected Balya Drugs - completed.
- Estimation of Marker compound (s) by HPTLC/HPLC for the selected plants - completed.
- Estimation of Trace Elements/Minerals in the selected plants by using ICP-OES. – completed.
- Estimation of Trace elements/Minerals in the Total ash content of the samples by using ICP-OES - completed.
- Estimation of Nutritional components like Vitamins and Amino acids, Protein, Carbohydrates, Crude fibre in the selected plants – completed.
- *In vitro* biological evaluation for antioxidant activity – completed.
- Physico-Chemical analysis of all received samples - completed
- ICP-OES analysis of all received samples - completed.
- GC-MS analysis of 90% of received samples -completed.
- Estimation of marker compound Peurarin in *Vidhari*: *Pueraria tuberosa* (Roxb. ex Willd.) DC..- Root by using HPTLC - completed.
- Anti-oxidant activity is in progress.
- Estimation of secondary metabolites with UV-Vis spectrophotometer is in progress.
- One Review research article is ready to send for publication after due approval from the Council.
- Estimation of other markers and Nutritional analysis is yet to be initiated.

9. **Isolation of Markers Compound from Ayurvedic Plants and Development of Marker Compound Library**
    - For the first year of the project, the three plants, namely *Swertia chirata*, *Picrorhiza kurroa*, and *Alstonia scholaris*, the physico-chemical parameters, TLC/HPTLC–completed
    - Isolation work completed.
    - Second year three plants, namely *Syzgium cumini*, *Caesalpinia crista*, *Momordica charantia* -physicochemical parameters and Isolation Work in progress.
    - Third year remaining three plants, namely *Mangifera indica*, *Gymnema sylvestre*, *Cryptolepis buchanani* -physico-chemical parameters and remaining isolation work in progress.
    - Purification and isolation work is in progress.
    - Submitted compounds for further studies, and some studies are yet to be completed.

10. **Development of Quality Standards, Estimation of Markers and Accelerated Shelf-life Studies of Guducyadi, Caturbhadra and Amrtottara Kvatha churna formulations.**
    - The Identification, authentication of plant materials, Batch-1 (6 Raw drugs) and Batch-2 & 3 (each 3 Raw drugs) completed.
    - Safety parameters, such as microbial load, aflatoxin studies, have been completed for Batch-I (6 Raw drugs).
    - Evaluation of physicochemical parameters of these raw drugs (Batch-1) completed
    - In-house preparation of formulations of Batch-1 completed. (each batch 1 kg- Guducyadi, Caturbhadra, and Amrtottara Kvatha churna formulations)
    - Safety parameters like microbial load, aflatoxin studies have been completed for Batch-I formulations.
    - Accelerated Shelf-life studies initiated for batch-1 formulations (0^{th} month). physico-chemical parameters completed
    - LOD, Ash value, Acid insoluble ash, water and alcohol soluble extractives, pH, and HPTLC marker estimation are in progress.
    - Quantitative analysis of phytochemicals like alkaloids, total phenols, and tannins, completed for batch-1 raw drugs and batch-1 three formulations

11. **Estimation of Calcium and Trace Minerals & Metals in *Sudhavarga* drugs of Ayurveda.**
    - Physico-chemical parameters such as ash value, acid insoluble ash, extractive values of aqueous and alcohol, LOD, Loss on ignition, pH, and solubility of raw drugs before and after shodhana have been completed for all the drugs collected from different geographical regions.
    - Estimation of Calcium in all raw drug materials, before and after Shodhana by using ICP-OES and the Titrimetric method has been completed.
    - Evaluation and analysis of trace elements/metals, which is elemental composition in raw drugs and Shodhita drugs with ICP-OES, has been completed.
    - Extraction of the raw drugs with different solvents (n-hexane, chloroform, ethyl acetate, and alcohol) using the Soxhlet apparatus has been completed

1.4.2 Collaborative Project - 01

1. **Development of quality control standards of selected extra-pharmacopoeial drugs (Anukt dravya) used in local health traditions collected from different regions of India**

- **Physiochemical parameter:** Physicochemical analyses such as loss on drying (LOD), alcohol soluble extractives, water soluble extractives, total Ash value, acid-insoluble Ash, pH, and volatile oil content were carried out as per the method described in the Ayurvedic Pharmacopoeia of India.
- **Phytochemical Analysis:** Preliminary Phytochemical Analysis, HPTLC profiling, Quantification, etc., were carried out as per the method described in the Ayurvedic Pharmacopoeia of India.
- Evaluation of safety parameters
- Aflatoxins (B1, B2, G1 and G2), Heavy metals (arsenic, cadmium, lead, and mercury), Pesticide residues, Microbial load, and specific pathogens.

2. BOTANY / PHARMACOGNOSY

2.1 Authentication of crude drugs/Inter-laboratory comparison / Taxonomic identification:

- Pharmacognostical identification of crude drug samples -72 completed
- Taxonomic authentication of samples -23 completed

2.2 Inter and Intra-laboratory comparison, retesting, and blind testing of crude drug Samples - 95 single drugs completed

2.3 Museum and Herbarium samples deposited:

- Preparation and deposition of Plant Herbarium – 804 completed
- Museum – 250 IMR Project samples (ARDH) completed

2.4 IMR PROJECTS

1. Development of Quality Standards of Selected Extra-pharmacopoeial Drugs (*Anukta Dravyas*) Used in Local Health Traditions Collected from Different Regions of India.

A total of 09 plants from three different regions have been collected from the field by taxonomic identification. Pharmacognostical studies, physicochemical properties, preliminary phytochemical and contaminants (Microbial, Aflatoxins, Heavy metals, and pesticides) for the collected plants have been completed. HPLC studies for marker analysis are in progress, as HPTLC in the Chemistry department is under repair. Eleven samples have been submitted for DNA-based Barcode analysis. Monograph preparation is in progress.

2. Development and Digitalization of Authentic Ayurvedic Raw Drugs and Herbarium for the Medicinal Plants Appearing in Ayurvedic Formularies of India in Mandatory Drug Testing Laboratories of CCRAS.

A total of 901 plant parts from 550 plants were allotted for the collection of the useful parts and herbarium in this project. Currently, 540 plant parts belonging to 350 plants were collected and or received from the 16 collaborating institutes. A total of 750 plant samples have been supplied to 03 Pharmacognosy mandate institutes (250 each). Macro-microscopic studies for 210 plants have been completed. Field collection and herbarium preparation for the remaining allotted plants are in progress.

3. **Development of Quality Standards for Useful Parts of Selected Medicinal Plants of Ayurveda.**

A total of 10 plants from 3 different regions (30 samples) were allotted in this project. The instruments, such as HPTLC and a Deep freezer, were purchased. 11 plant samples have been received for which pharmacognostical studies (macroscopy, section and powder microscopy) and chemical studies (phytochemical, physiochemical and TLC studies) are in progress.

3. MICROBIOLOGY

3.1 Accelerated stability studies of DTL samples – 11 completed

3.2 IMR project samples - 90 completed3

3.3 DTL Samples - 167 completed

3.4 NABL samples – 66 completed

3.5 Proficiency Testing – 4 completed

3.6 IMR PROJECTS

1. **Antibacterial activity of selective Ayurveda formulations against Gastrointestinal infection, Respiratory infection, and Urinary tract infection causing bacteria**
   - Antimicrobial evaluation of Balachaturbhadrika curna, Bilvadileha, and Kutj Ghanavati against Gastrointestinal disorder-causing microorganisms.
   - Antimicrobial evaluation of Agastya haritaki and Talisadi curna against Respiratory disorder-causing microorganisms.
   - Antimicrobial evaluation of Goksuradi guggulu, Chandanadi vati, and Chandraprabha vati against Urinary disorder-causing microorganisms.
   - Ayurvedic samples prepared in CARI Jhansi were subjected to Soxhlet extraction for Bilvadileha, Balachaturbhadrika curna, Kutj Ghanavati, Agastiya haritaki rasayana, and Chandraprabha vati (Alcohol, hydroalcoholic, and water extracts). Revived bacterial cultures were subcultured for antimicrobial activity testing. Antibacterial and antioxidant activity of Bilvadileha, Balachaturbhadrika curna, Kutj Ghanavati, Agastiya haritaki rasayana and Chandraprabha vati (Alcohol, hydroalcoholic and water extracts) were done using agar well and disc diffusion assay. Further all 08 ayurvedic samples subjected to Minimum inhibitory concentration test and Minimum bactericidal concentration test. Gokshuradi Guggulu sample ABA, MIC’s results are analysed and compared with other reported results. All the objectives of project completed and Report preparation is under progress. Gokshuradi guggulu manuscript preparation completed.

2. **Isolation and Identification of Endophytic Microorganisms from the stem barks used in Ayurveda (Panchavalkala) and Evaluation of their Antimicrobial, antioxidant, and antibiofilm activities**

   - Collection and taxonomical identification of stem barks of 05 selected Panchavalkala based on feasibility.
   - Isolation and Identification of endophytic microorganisms from the mentioned underneath stem barks of Panchavalkala.
   - Evaluation of biological activities such as anti-oxidant, anti-biofilm, and anti-microbial activity of isolated endophytes in comparison with the host plant's bark extract.
   - Molecular characterization of isolated endophytic microorganisms for identification.
   - GC-MS/LC-MS profiling of Phytoconstituents present in the endophyte and host plant bark extract.
   - Project sanctioned in May, JRF recruitment completed, and instruments like PCR, GelDoc, Electrophoresis Shaker Incubator, and drybath were purchased through the GEM portal. General microbiological sensitization training provided to JRF. Prepared SOP for surface sterilization of the Panchavalkala plants and isolation of endophytes from the plant stem. Isolation of endophytes from stem, root, and leaf was initiated, and from 03 plants isolated 36 microorganisms and their antimicrobial activity evaluation is in progress.

4. PHARMACY

4.1 IMR PROJECTS

1. **Developing Quality Standards for selected Extra-pharmacopoeial Drugs collected from Irula Tribes of Thandarai, Kancheepuram District, Tamil Nadu**
   - Completed literature survey & procurement of 7 extra-pharmacopoeial drugs from 3 different geographical regions, along with their taxonomic identification
   - Evaluation of 7 extra-pharmacopoeial drugs in 3 batches for microbiological contamination was completed.
   - Macro-microscopic evaluation of the useful parts of 7 extra-pharmacopoeial drugs was completed.

- Phytochemical evaluation by physico-chemical tests, preliminary phytochemical screening, TLC/HPTLC studies, and FTIR studies completed for 7 extra-pharmacopoeial drugs.
- Assessment of pharmacodynamic properties of 7 extra-pharmacopoeial drugs by rasa determination, taste threshold, and analysis of organoleptic characters for Ayurvedic properties was completed.
- LC-MS-MS for 7 extra-pharmacopoeial drugs in 3 batches were sent to Panjab University, Chandigarh, for analysis; the results are yet to be received.
- Compilation of data, Interpretation of results, and final report preparation are in progress

2. Development of Quality Standards for selected *Arka* formulations

- Literature survey, procurement & authentication of 16 drugs from 3 different regions of five Arka formulations completed.
- Evaluation of Physico-chemical parameters of 16 ingredients of 3 different regions of 5 Arka formulations completed.
- Preparations of three batches of 5 Arka formulations completed.
- Quality control analysis of five Arka formulations(in 3 batches) completed.
- Anti-microbial study of 5 Arka formulations(in 3 batches) completed.
- Shelf life studies of 5 Arka formulations (in 3 batches) under process.

5. PHARMACOLOGY

5.1 IMR PROJECTS

1. Acute and chronic (180 days) oral toxicity study of coded drug AYUSH RP

This project aims to study the toxicity of the coded drug Ayush RP in experimental laboratory animals via acute and chronic oral toxicity studies. The acute oral toxicity study was completed. The acute toxicity study helps to evaluate the toxic manifestations that occurs when the animals (Wistar albino rats and Swiss albino mice) are exposed to a single high dose, and clinical signs and mortality are monitored for 14 days. The chronic oral study is in progress. In a chronic oral toxicity study, Wistar albino rats will exposed to a test drug for 180 days, monitored for clinical signs, clinical laboratory investigations like haematology and biochemical profile at various intervals, assessment of motor activity and non-invasive observations and mortality. It also helps to evaluate the toxicological profile of target organs of toxicity, reversibility of toxicological findings and No oObserved Effect Level (NOEL) or No Observed Adverse Effect Level (NOAEL) in experimental animals.

2. Acute and Chronic (180 days) repeated dose oral toxicity study of Nimbatiktam (AYUSH-NT)

The Test Item in the coded form, Ayush NT was supplied by the CARI, Jhansi. Acute oral toxicity was carried out in the experimental animals in two species/both male & female, 6 per group (Swiss Albino Mice & Wistar Albino Rat) as per the regulatory guidelines approved for ASU drugs (OECD 423, CCRAS guidelines, NDCTR). The recommended Human dose is 400 mg/ day. The animal dose was calculated using a dose conversion factor based on the human dose. 10 times higher than the therapeutic dose or the limit dose of 2000 mg/kg body weight, whichever is higher, can be administered. So, a single oral dose of 2000 mg/kg b.w. was orally administered to all the animals in the treatment group and observed for a period of 14 days. No toxic signs or adverse effects reported during the study. On day 15, the animals were sacrificed and observed for gross pathology. No abnormalities detected. The LD_{50} was found to be above 2000 mg/kg b.wt. and the test item is classified as Category 5 of the GHS classification.

The chronic toxicity study of Nimbatiktam is ongoing. Weekly measurement of body weight, feed consumption, and water intake was carried out at regular intervals. Qualitative estimation of Urine analysis, Behavioural monitoring (Motor coordination and grip strength), Hematological and Biochemical estimations were completed for the 90^{th} day of the study period.

3. Acute and 180 days repeated dose oral toxicity study of AYUSH Balrakshak Lehyam

The present study aims to investigate the toxicity of AYUSH Balrakshak Lehyam through pre-clinical toxicity studies. The objectives include assessing the oral acute toxicity, conducting a 180-days repeated dose oral toxicity study, and evaluating the drug's safety in juvenile rats. The acute toxicity study will involve 12 male and female Wistar rats and Swiss albino mice, as per the CCRAS protocol for ASU drugs. The 180-day repeated dose study will be carried out in Wistar rats, following the OECD Guidelines for Testing of Chemicals 452. Additionally, a juvenile toxicity study will be conducted in alignment with the European Medicines Agency's guidelines on testing pharmaceuticals for pediatric indications. Lab investigations will include urine analysis, hematological parameters, clinical biochemistry, gross necropsy, histopathology, and organ weight assessments. The expected outcomes of this study are to provide comprehensive data on the toxicity of AYUSH Balrakshak Lehyam, including identifying major toxic effects, target organs, potential accumulation, and health hazards associated with long-term exposure. The study will also help determine the No Observed Adverse Effect Level (NOAEL) of the drug, offering a foundation for further toxicological risk assessments and ensuring its safe use in human health. Given its use in enhancing immunity in pediatric populations, this study is crucial for evaluating its long-term safety, particularly in juvenile rats.

4. Cardio protective effect of Pushkara Guggulu on experimentally induced myocardial infarction in rats.

Effect of Pushkara Guggulu on experimentally induced myocardial infarction in rats. Pushkara Guggulu is a proprietary formulation. This formulation possesses a very good protective activity against the circulatory problems and blood vessel disorders, and the herbs used in this formulation are very effective in the treatment of cardiac disorders individually or as a formulation in different combinations. The study is about its protective effect in chemical-induced and surgical models.

5.2 Collaborative Project: 02

1. **Toxicity profile of Tribhuvana Kirti Rasa in experimental animals (**IITR Lucknow + CSIR-Indian Institute of Toxicology Research)

The purpose of the proposed studies is to assess the systemic safety/toxicity profile, if any, of Bhasma/Rasakalpa Tribhuvanakirti Rasa formulation as per the regulatory requirements. The studies provide information on the major systemic toxic effects, target organs, and an estimate of the No Observed Effect Level (NOEL) / No Observed Adverse Effect Level (NOAEL) and reversibility of observed changes, if any, after discontinuation of treatment with the Tribhuvanakirti Rasa formulation.

2. **Development of *Opuntia elatior* (fruit) based food recipes (product development) and its nutritional, toxicity, efficacy and bioavailability studies & Development of *Madhuca longifolia* (Flower)based food recipe (Product development) and its nutritional, toxicity, efficacy and bioavailability studies**

To develop Ayurveda-based food recipes that can be introduced into the mainstream for the public after ensuring regulatory guidelines. Using sophisticated techniques such as UPLC, LCMS, and ICPMS, the study generated a database on the nutritional composition of Mahua flower consumed by the population at the country level, which could be useful as a comprehensive assessment of food tables and helps to determine the dietary intake of individuals at the country level. The toxicological profile of chemically characterized Mahua flower and its recipes will be evaluated to determine the safety of use and the benefit to haemoglobin improvement. The overall investigation will lead to the conclusion that the Mahua flower does not have any toxicologically relevant abnormalities in the population. Scientific validation of the nutrient composition of Mahua flower and findings could be used by the Government to develop a population nutrition strategy. This research will also assist small-scale industries in achieving economic sustainability while producing large quantities of recipes, thereby promoting empowerment. The study is expected to shed light on the acceptability of Mahua flower and its recipes across various age groups, assisting governments in making decisions for the introduction of these recipes for regular consumption

5.3 IMR project completed – 03

i. Formulation of Drug Master File and Dossier for important promising medicinal plant *Emblica officinalis* (Phyllanthaceae) based on leads from Ayurveda and contemporary research
ii. Safety and anti-obesity activity of Tryusanadi guggulu in experimental animals
iii. *In-vitro* and *in-vivo* evaluation of anti-migraine activity of *AYUSH M3*

5.4 EMR Projects submitted under Ayurgyan Scheme

1. Acute and Chronic (180 days) repeated dose oral toxicity study of *Avipattikar Churna*
2. Acute and Chronic (180 days) repeated dose oral toxicity study of *Chandraprabha Vati*
3. Acute and Chronic (180 days) repeated dose oral toxicity study of *Bramhyadi Yoga*

6. BIOCHEMISTRY

6.1 DTL/NABL Samples

There were 964 samples (NABL+DTL) analysed during April 2024 - March 2025.

6.2 IMR PROJECT

1. Anti-cancer activity of *Chaulmoogra* oil and *Shwetha Sarshapa* churna in the treatment of epidermal carcinoma of skin in experimental mice

Quality control analysis of *Chaulmoogra* oil *and Shwetha Sarshapa* churna as per the Pharmacopoeial standards was completed. Quality control parameters include the collection of raw drugs, Taxonomic authentication, and Pharmacognostical evaluation, including anatomy, macroscopy, and powder microscopy was completed. Preparation of the first lot of *Chaulmoogra* oil with two different methods, ie, cold press and heat extraction of oil, was completed. These two oil preparations and *Shwetha Sarshapa* churna were subjected to the following: Microbial load for *Chaulmoogra oil and Shwetha Sarshapa* churna with total bacterial count, total fungal count, and selective pathogens like *E. coli*., *Salmonella*, *Staphylococcus aureus*, and *Pseudomonas aeruginosa* on the 0^{th} day, the first and second quarter of the accelerated stability study were completed. Chemical profiling, Rancidity, Peroxide value, Refractive Index, Specific Gravity, Acid Value, Iodine Value, and Saponification Value, HPTLC analysis, Heavy metal analysis, Aflatoxin estimation 0-day, 1^{st} quarter, and 2^{nd} quarter were completed. Qualitative and Quantitative analysis of *Shwetha Sarshapa* churna was completed. *In vitro* Anti-oxidant assays like DPPH, H_2O_2, ABTS, SOD, ion chelation and hydroxyl radical scavenging for *Shwetha sarshapa* churna were completed

IAEC approval for safety (acute and sub-chronic dermal toxicity studies) was completed. Rats were procured for acute and sub-chronic dermal toxicity studies. Acute dermal toxicity (as per OECD 402) of *Chaulmoogra oil and Shwetha Sarshapa* churna in rats has been completed. Sub-chronic dermal toxicity (as per OECD 411) of *Chaulmoogra oil and Shwetha Sarshapa* churna in rats has been completed. Histopathology of acute and sub-chronic dermal toxicity studies completed. Preventive study of anti-cancer activity of Chaulmoogra oil and Shwetha sarshapa churna in chemically induced epidermal carcinoma in mice is in progress. Anti-cancer activity of *Chaulmoogra* oil and *Shwetha sarshapa* churna, a curative part of the study using chemically induced epidermal carcinoma in mice, has been initiated.

7. LITERARY RESEARCH

1. **Documentation of life profiles of admirable personalities to transform ayurveda (apta) – Dr. V. Narayana Swamy**

   Documentation completed. Final report prepared and submitted.

2. **Documentation of Life Profiles of Admirable Personalities to Transform Ayurveda (APTA) – Arya Vaidyan P V Raghava Varier**

   Documentation completed. Final report prepared and submitted.

8. COUNCIL ALLOTTED WORK

8.1 Preclinical and Clinical Safety Data of medicinal plants

S. No.	Name of the Officer	Name of the Plant
1.	Dr. S. Chitra	Seeds of Tuvaraka- *Hydnocarpus* Gaertn.
2.	Dr. G. Kusuma	*Blepharis edulis* & *Thalictrum foliolosum*
3.	Dr.R. Arunadevi	*Convolvulus* L. (All parts) and *Areca catechu* L.
4.	Dr. Aswathi Mohan P	Aswagandha roots and Kapikachu seeds
5.	Dr.KC Haritha Yadav	*Alhagi pseudalhagi* all parts and *Anemone* L. all parts
6.	Monika .N	*Vinca rosea* (All parts) and *Colchicum luteum* Baker (All parts)
7.	M.Thenmozhi	*Aristolochia* L. roots and *Berberis* L. roots and bark
8.	Dr. Anshu Wali	All parts of Nimba- *Azadirachta* indica A Juss and Kakamari- *Anamirta cocculus* (L.) Wight et Arn

Preclinical and Clinical Safety data of 13 medicinal plants were collected, compiled, and submitted to the Headquarters by the above 8 officers.

9. PUBLICATION (2024-2025)

9.1 Research Articles Published

S. No	Name of the Authors	Title of Paper	Name of the Journals	Publication details
1	S. Chitra*, J. Shrirang; G.N. Sudesh, R.Ilavarasan, ENT. Vikram	Evidence-based study of Hridayarnava Rasa: An Ayurvedic formulation in experimentally induced atherosclerotic cardiovascular disease.	Journal of Drug Research in Ayurvedic Sciences	2024; 9(3): 138-149
2	K. Ghosh*, K. V. Krishna, T. Vinodkumar, T. Dinesh, R. Balakumar, S. Chitra	Mineral composition of Aegle marmelos (L.) corrěa ash: Exploration of its ability to mimic the function of different metalloenzymes	Chemistry of Inorganic Materials	2024; 4: 100074
3	K. Ghosh*, M. Saravanan, K. V. Krishna, T. Vinodkumar, R. Balakumar, R. Ilavarasan, A. K. Mandal, S. Ramachandran	Exploration of catalytic activities of Caesalpinia bonduc (L.) Roxb. ash on green oxidation of small organic substrates: an effective way to reduce the use of harsh chemicals	Discover Chemistry	2024; 1: 26
4	K. Ghosh*, T. Vinodkumar, R. Singh, A. Singh, R. Ilavarasan	Promising potential of millets as the staple of our plate: an Indian perspective	Discover Food	2024; 4: 103
5	K. Ghosh*, M. Saravanan, R. Balakumar, T.	Eco-Friendly Synthesis of Alstonia	Waste Management Bulletin	2024; 2: 299-305

	Vinodkumar, R. Ilavarasan, A. K. Mandal, S. Ramachandran	scholaris (L.) R. Br. Extract-Mediated Nanostructured Material: Removal of Organic Pollutants from Water Resources		
6	T. Vinodkumar*, T. Dinesh, K. Ghosh, R. Ilavarasan	A comprehensive analysis of minerals in Moringa oleifera leaves, seeds, stem bark, and ash using inductively coupled plasma-optical emission spectroscopy (ICP-OES)	Discover Chemistry	2025; 2: 36
7	T Vinodkumar*, CV. Narasimhaji CP, Kumar G Kusuma, CT Swamy, VR Rao, G. Marimuthu, V. Naresh, K. Ghosh, R. Ilavarasan, R. Singh, A. Singh, N. Srikanth, R. Acharya	Standardization of AYUSH-64 a Poly Herbal Formulation: Phyto-Pharmacognostical Evaluation and Estimation of Picroside-I and Picroside-II using HPLC	Revista Brasileira de Farmacognosia	2025; 35: 345–352
8	M. Varkolu, S. Gundekari, Omvesh , VCS. Palla, P Kumar ,S Bhattacharjee T. Vinodkumar*	Recent Advances in Biochar Production, Characterization, and Environmental Applications	Catalysts	2025, 15, 243.
9	Vikram ENT*, Kamaraj R, Ilavarasan R, Kusuma G, Susikumar S, Ch	Understanding the efficacy of Sodhana, a classical drug detoxification	Phytomedicine Plus	2024; 4(3): 100587

	V.Narasimhaji, Gokul M.	technique that may increase safety in using three varieties of Abrus precatorius L. seeds - a toxic Schedule E1 drug used in various herbal formulations		
10	**R. Ilavarasan***, R. Arunadevi, G. Kusuma, Sudesh N.Gaidhani, M. Thenmozhi, N. Manikandan	Evaluation of Anti-arthritic and in-vitro Anti-inflammatory activity of Vaisvanara Churna	Journal of Ethnopharmacology	2025; 337: 118774
11	Singh P, Pandey A, Bilung CJ. et al.	Identification of methyl jasmonate-induced cardiac glycosides and related biosynthetic transcripts from callus culture of Calotropis gigantea using transcriptome and metabolite profiling. In vitro	Cell.Dev.Biol.-Plant	60, 575–587 (2024)
12	Arya S, Singh H, Vishnu KW	Study on the Genus Drymaria (Caryophyllaceae)—A New Species from North-East India	Plants (MDPI)-International	2024; 13 (23); 3378
13	Minj EA, Pandey A, Kumar A. et al.	Extreme temperatures elicit the accumulation of cardiac glycoside and their genin	J Plant Res	2025; 138: 347–364

		units in Calotropis procera by altering the expression of transcripts involved in its biosynthesis.		
14	Bano A, Kumari A, Pandey A, Kumar A, Madan M, Mohanta A, et al.	Elucidating the wedelolactone biosynthesis pathway from Eclipta prostrata (L.) L.: a comprehensive analysis integrating de novo comparative transcriptomics, metabolomics, and molecular docking of targeted proteins.	Protoplasma	2025; doi: 10.1007/s00709-025-02030-8.
15	Kaur A, Purewal SS, Swamy CT, Sen A.	Harnessing the Power of Black Rice Anthocyanins: A Review in Context of Extraction and Chromatographic Techniques	Journal of Food Quality	2025(1), 4005156
16	Swamy CT*, Kochadai N.	A comparative analysis of the antioxidant and antibacterial potential of sweet lime and orange peel extracts against pathogenic bacteria	Microbes and Infectious Diseases	2024; doi.org/10.21608/mid.2024.320393.2211
17	Thenmozhi M, Gokul M, Krishnan KM	Pharmacognostic, phytochemical and physico-chemical	Int. J. Pharm Sci. Re.s	2024; 15(8): 2338-45.

		evaluation of leaves of Tragia involucrata Linn.		
18	Fahadul I*, Md. AK Azad, Balaji P, Jeetendra Kumar Gupta, Ronald D, Panchangam Amrutha Lakshmi, Thenmozhi M	Bioactive Extracts from the Fruit Rind of Limonia acidissima L. Exhibit Neuro-Modulatory Properties in a Thiopental-Sodium Sleep Model in Swiss Albino Mice: Implications for Neuro-Pharmacological Interventions	J. Biol. Regul. Homeost. Agents	2024; 38(7): 5619–5626
19	K Teja Kumar* Reddy, Jeetendra Kumar Gupta, A Venkata Badarinath, D Jeslin , C Shivanna, M Thenmozhi	Progress of Indole Alkaloids for potential application in Type 2 Diabetes mellitus- An updated review	Bioface Research in Applied Chemistry	2025; 15(1): 9
20	Ilavarasan R*, Arunadevi R, Kusuma G, Gaidhani SN, Thenmozhi M, Manikandan N, Maheswari B	Quality control and stability studies of Vaisvanara churna-a classical Ayurvedic formulation"	Research J. Pharm. Tech.	2025; 18: 9
21	Gopinath Pandian, Rathinam Arunadevi, Vajiravelu Sivamurugan	Isolation and characterization of a Triterpenoid compound from sodhita Semecarpus anacardium L. Drupe ethanolic extract and its anticancer	Toxicology International	2024; 31(2):159-67

		potential In vitro.		
22	Simhadri D, Kanne H, Mallela U	Angiosome Territories of Vestibulocochlear Nerve (VIII).	Ann Neurosci.	2025 Jan 21: 09727531241301826.
23	Satya MJ, Monika N, Gokul M, Sathiyabalan G, Bhuvaneshwari S.	In-vivo anti-arthritic potential of ethanol extract of Acacia nilotica L. leaves in gout model	Toxicology International	2025; 32(1): 147–156
24	Wali A*. Gupta M.	Essential oils and post-distilled wastes of Aegle marmelos reveal potent antioxidant potential for use in the food industry	Waste and Biomass Valorization	2024; 15: 4853–4866
25	Wali A*, Maramreddy PR, Subramani C, Krishnamurthy S, Ilavarasan R	Asiaticoside Quantification using HPTLC and Antioxidant potential of Jalbrahmi grown in the ecological conditions of Chennai city	Indian Journal of Agricultural Biochemistry	2024; 37: 82-89
26	Pattona AM, Kusuma G, Ilavarasan R	Captain G. Srinivasa Murthy: A legend who revived Indian Medicine	J Res Ayurvedic Sci	2024; 8: S70-4
27	Pattona AM, Kusuma G, Nartunai G, Ilavarasan R	Ms.Savita Satakopan - A doyen of research in the field of Pharmacognosy	J Res Ayurvedic Sci	2024; 8: S110-4
28	Soumya Mohanan	Vaidya Brahmasree O.	Journal of Research in	2024; 8(Suppl 2): S135-S140

	Chandrika, Peethambaran Sinimol, Thekkekkottumughath, Nalinakshan Sreedeepthi Girija	Kesavan Nadar Swami: The pioneer who has elevated the prominence of Marma Sastra in the curriculum of Ayurveda	Ayurvedic Sciences	
29	Deepthi GN, Sree Sinimol TP, Soumya MC, Surendran Emy S, Kumar V Krishna	Sadyovamana, the treatment of choice for the emergency management of urticaria: A case report.	Journal of Ayurveda Case Reports	2025;1:31-34.

*Corresponding author

9.2 Book Chapters Published

S.No	Name of the Authors	Title of Paper	Name of the Journals/ Book	National/ International	Publication Details
1	T. Vinodkumar, **K. Ghosh**, R. Ilavarasan	Phytochemical Characterization of Plants, Futuristic Trends in Herbal Medicines and Food Products	Encyclopedia of Green Materials	Inter national	IIP Series, ISBN: 978-93-5747-680-5
2	Sivadurga K, Srivastava R, Swamy CT, **Chelladurai P, Pandey A**, Reddy MP, Kaur A, Purewal SS.	Colored Pigments: Extraction, Identification, and Health Aspects	Colored Cereals.	International	CRC Press eBooks. Informa; 2025
3	Reddy MP, Sen A, Swamy CT, **Chelladurai P,** Sivadurga K, **Pandey A**, Srivastava R, Kaur A, and Purewal SS	Chemistry of Macro- and Micronutrients	Colored Cereals.	International	CRC Press eBooks. Informa; 2025

4	**Chelladurai P, Pandey A,** Swamy CT, Sivadurga K, K.Anbarasi, Reddy MP, Sen A, Kaur A, Purewal SS, Dash SK, and Kaur M.	: Phenolic Compounds: Extraction, Identification, and Health Aspects	Colored Cereals.	International	. CRC Press eBooks. Informa; 2025.
5	**Chelladurai P, Pandey A,** Swamy CT, Sivadurga K, Anbarasi K., Reddy MP, Sen A, Kaur A, Purewal SS	Biotechnological Tools to Improve Colored Cereals	Colored Cereals.	International	CRC Press eBooks. Informa; 2025.
6	Paul, R. M., Ashesh, A., Purohit, N. N., Kaur, S., Singh, A., Purewal, S. S., ... & **Swamy, C. T.**	Agrarian Conditions.	*Colored Cereals: Properties, Processing, Health Benefits, and Industrial Uses*	International	CRC Press eBooks. Informa; 2025.
7	Kaur, M., Saini, M. K., Samota, M. K., Purewal, S. S., & **Swamy, C. T.**	Post-Harvest Management.	*Colored Cereals: Properties, Processing, Health Benefits, and Industrial Uses*	International	CRC Press eBooks. Informa; 2025.
8	Sivadurga, K., Srivastava, R., & **Swamy, C. T**	Colored Pigments: Extraction, Identification, and Health Aspects.	*Colored Cereals: Properties, Processing, Health Benefits, and Industrial Uses*	International	CRC Press eBooks. Informa; 2025
9	Arunadevi, R., Zacharioudaki, A.,	Basic Techniques to	Vijayakumar Sreelatha,	International	Springer, Singapore.

	Thorat, R., Shenoy, S.J., Vijayakumar Sreelatha, H	Facilitate Small Animal Experimentation.	H., Patel, S., Nagarajan, P. (eds) Animal Models in Research.		https://doi.org/10.1007/978-981-97-0048-6_5
10	Dhanasekaran, S., Arunadevi, R., Nandan, M., Chandrababu, K., Baby Chakrapani, P.S.,Sivan, U.	Animal Model for Alzheimer’s Disease, Parkinson’s Disease, and Schizophrenia.	In: Vijayakumar Sreelatha, H., Patel, S., Nagarajan, P. (eds). Animal Models in Research	International	Springer, Singapore. https://doi.org/10.1007/978-981-97-0048-6_16
11	Arunadevi R, Jena GB, Sharma SS, Srinivasan K	Modelling ischemic stroke by middle cerebral artery occlusion in rat	. In: Vijayakumar Sreelatha H, Patel S, Nagarajan P, editors. *Animal Models in Research*	International	Singapore: Springer; 2024. doi: 10.1007/978-981-97-0048-6_16.

9.3 As a reviewer of the manuscripts for various journals

- **Dr. Kousik Ghosh,** Research Officer, Chemistry reviewed four manuscripts for the “*Waste Management Bulletin*” Journal.
- **Dr. Kousik Ghosh,** Research Officer, Chemistry reviewed one manuscript for the “*Combinatorial Chemistry & High Throughput Screening (CCHTS)*” Journal.
- **Dr. T. Vinod Kumar**, Research Officer (Chemistry), has reviewed one manuscript in the *Applied Physics A* journal
- **Kusuma G**, Pattona AM, Ilavarasan R. Arya Vaidyan N. Rama Varier - Propagator of Ayurveda in Tamil Nadu revised the Manuscript as suggested by the reviewer of *Journal of Research in Ayurvedic Sciences* and submitted on 2nd July, 2024.
- **Dr. Swamy CT** reviewed around 13 papers in National and International scientific journals

- **M. Prathapa Reddy**, Assistant Research Officer, Chemistry, reviewed 2 original research articles in the *Journal of Research in Siddha Medicine*

9.4 Evaluation of research proposal review

- Dr.Swamy CT, Research Officer, Microbiology, evaluated one research proposal under **CCRAS PG-STAR programme**

- Dr.Swamy CT, Research Officer, Microbiology, evaluated one research proposal under **Studentship Program For Ayurveda Research Ken" (SPARK)**

10. CONFERENCES/ SEMINAR/WORKSHOP/ SYMPOSIA/CME PROGRAM (NATIONAL/INTERNATIONAL LEVEL ONLY)

10.1 Resource Person

S. No.	Name of the participant	Title of lecture delivered	Name of Conference / Seminars/ Workshop/ Symposia	National/ International	Name of Organizer and Venue	Period (exact date & year)
1	Dr. R. Arunadevi	Blood collection in laboratory animals and necropsy of the rat	Workshop on "Basic Research Techniques and Practices of Laboratory Animal Care"	National	National Institute of Siddha	30.06.2024
2	Dr. S. Chitra	Importance of Drug Standardization and Quality Control of ASU drugs	6-Days CME Programme for Ayush Doctors & Scientists	National	CSMCARI, Chennai	25.11.2024
3	Mr. Vishnu Walsan K	Perspectives in Explorative and Quantitative Ethnomedicine	6-Days CME Programme for Ayush Doctors & Scientists	National	CSMCARI, Chennai	27.11.2024
4	Mr. Ravi Prakash Shaliwal	Biotechnology and Ayurveda: the amalgamation of both is the need of the hour	6-Days CME Programme for Ayush Doctors & Scientists	National	CSMCARI, Chennai	30-11-2024

5	Dr. Akansha Pandey	Utilising the potential of glycosyl transferases present in Ayurvedic Medicinal Plants through pathways and bioengineering	6-Days CME Programme for Ayush Doctors & Scientists	National	CSMCARI, Chennai	30-11-2024
6	Dr. S. Chitra	Neutrigenomics -An Ayurvedic approach	Personalised medicine and nutrition- An insight	International Conference	BRIC, Anna University, Regional Campus, Coimbatore	13.02. 2025

10.2 Participated/Paper presented in Conference/Seminar/Webinar/Workshop etc.

S. No	Name of the participant	Name of Seminars /Workshop/ Conference/ Meeting/ Training/ CME	National / International	Name of Organizer and Venue	Date of Participation
1.	Mr. M. Prathapa Reddy	Webinar on ‘’HPTLC for Quality Control of Herbal Drugs’by virtual mode	National	Benguluru	18.04.2024
2.	Dr. R. Arunadevi, N.Monika & Dr.KC Haritha	Integrating Bioinformatics with Ayurveda for better understanding by Virtual mode	National	Altem Technologies, Benguluru	18.04.2024
3.	N.Monika & Dr.KC Haritha	National Conference on Natural Products/ AYUSH system by Virtual mode	National	PGIMER Chandigarh in Collaboration with the NMPB, M/o Ayush, Govt. of India, Mandi,	19.04.2024 to 20.04.2024

				Himachal Pradesh	
4.	Dr. G. Kusuma	Two-day training workshop on Integrative Oncology Research Course for CCRAS scientists by Virtual mode	International	OCCAM, NIH, USA	29.05.2024to 30 .05.2024
5.	Dr. Kousik Ghosh, Dr. T. Vinod Kumar, Mr. M. Prathapa Reddy, Smt. B. Maheswari, Sh. V.Naresh	GC-MS-MS training -Quantitative assay -on site	Institute	CSMCARI, Chennai	01.05.24 to 03.05.24
6.	Dr. R. Arunadevi	Certificate Course In Laboratory Animal Sciences – CCLAS – 2024 FELASA Accredited – for VETS	International	Madras Veterinary College, Chennai	21.06.2024 to 22.06.2024
7.	Mr. C. Prem Kumar	5 days Capacity Building Training programme -Quality Control and Standardization of ASU&H Drugs”	National	PCIM&H, Ghaziabad, Ministry of Ayush, Govt. of India	24.06.2024 to 28.06.2024
8.	Dr.Soumya Ms.Monika N	Virtual Library database training entitled “CCRH E-library consortium”	Regional	CCRAS	26.07.2024
9.	Mr. M. Prathapa Reddy	Workshop on “Mastering the Art of Scientific Writing: Researchers and Academicians”	National	Ramakrishna Mission Vivekananda College (Autonomous), Mylapore, Chennai	23.08.2024
10.	Ms.Monika N	CCRH Library consortium Virtual webinar	National	CCRAS Library	08.08.2024, 23.08.2024,

					06.09.2024, 20.09.2024
11.	Dr. R. Arunadevi Dr. T. Vinod Kumar	National seminar on Drug Development in Traditional Medicine	National	NIIMH, Hyderabad, CCRAS at IICT Hyderabad	2.09.2024 to 4.09. 2024
12.	Dr. G. Kusuma, Mr. C. Prem Kumar, Dr.KC Haritha M.Thenmozhi, N.Monika	Drug Development in Traditional Medicine by Virtual mode	National Seminar	NIIMH, Hyderabad, CCRAS at IICT Hyderabad	3.09.2024 to 04.09.2024
13.	Smt. Lakshmi Nair. S, Smt. B. Radha Rani, Sh. B. Balaji, Sh. J. Sampath Kumar	Exposure visit cum training for administrative staff (Samvardhana)	Training	CCRAS, New Delhi	06.09.2024
14.	Dr.R.Arunadevi, Dr.KC Haritha Smt.M.Thenmozhi, Ms.N.Monika	Attented Demo Training on Instrument Erba Urine analyser and Coagulation analyser	Institute	Erba Mannheim	24-09-2024
15.	Mr. Vishnu Walsan K, Mr. C. Prem Kumar, Dr. Akansha Pandey	Training program “Digitalization of herbarium with special emphasis on utilization of barcode and color chart”	National	CARI-Kolkata	08-10-2024, 04-10-2024.
16.	All Officers and staff	Attended Basic and first e-office training orientation programme by virtual mode	National	CCARS, New Delhi	23.10.2024

17.	Dr. Kousik Ghosh Dr. T. Vinod Kumar, Mr. M. Prathapa Reddy	One-day Value Added Services	Regional	Toshvin Analytical Limited	25-10-2024
18.	All Officers and staff	Practical Training given to the participants one who have attended the 6-day CME programme at CMCARI, Chennai.	National	Sponsored by M/o Ayush, under Ayurgyan Scheme	25.11.2024 to 30.11. 2024.
19.	Ms.Monika N	Symposium cum Workshop on Ayurinformatics (CSFP-AI) 2024 by Virtual mode	International	NIPER, S.A.S. Nagar	11.11.2024 - 15.11. 2024
20.	Newly appointed officers and staff	NABL training programme was conducted at this Institute	Institutional	CSMCARI, Chennai	10.12.2024
21.	Dr. S. Chitra	Two-day Training Programme on Best Practices and Enforcement of D&C Act 1940, Rules 1945 & DMR Act, 1954	National	Central Council for Research in Siddha (CCRS), Ministry of Ayush, Govt. of India, All India Institute of Ayurveda (AIIA), National Pharmacovigilance Co-ordination Centre (NPvCC)	05/12/2024
22.	Dr. S. Chitra	5th Sectional committee meeting	Regional	BIS, New Delhi	27/12/2024

		of AIYD-05 by Virtual mode			
23.	Dr. Soumya. M.C	Live interactive sessions of e-post graduate training programme by Virtual mode	National	IIPH, Delhi	7.5.2024, 3.9.2024, 18.10.2024, 20.11.2024, 23.12.2024, 23.01.2025
24.	Dr. Swamy C T Mr.Vishnu Walsan K, Dr. Akansha Pandey	4 days - CSIR-TKDL workshop on Traditional Knowledge - Intellectual Property & People's Rights by virtual mode	National	M/o Education, in collaboration with the CSIR-TKDL	10.12.2024 13.12.2024
25.	Smt. M Thenmozhi	Pre-clinical toxicology and Risk assessment	National	University of Hyderabad, Federation of Asian Biotech Associations (FABA), Hyderabad	9.12.2024 – 13.12.2024
26.	Ms.Monika N	Five days of international e-workshops on Master of Art of research for quick report writing and quality publication	International	Global Research and Training Centre, Chennai.	26.12.2024 to 30.12.2024
27.	Dr. R. Arunadevi, Dr.KC Haritha M.Thenmozhi, Ms.N.Monika	Attended demo training on the instrument “Any maze Animal behavioural monitoring system” using Elevated Plus Maze	Institute	Gentech Marketing Pvt. Ltd	08.12.2024
28.	Ms.Monika N	3 days international e-conference on Advanced Pharmacists: Designing the Future	International	School of Pharmaceutical Sciences, VISTAS	29.01. 2025-31.01. 2025

		Workforce through Industry-Academia integration			
29.	Ms.Monika N	Emerging Technologies in Healthcare by Virtual mode	National	National Institute of Unani Medicine, Bengaluru.	09.01.2025
30.	Mr.M.Pratapa Reddy, Dr. Anshu Wali, Smt. B. Maheswari, Sh. V. Naresh, Dr. Akansha Pandey	One day National seminar on collaborative activities- A mean to integrate Ayush systems into mainstream healthcare	National	Regional Research Institute of Unani Medicine, (CCRUM, M/o Ayush, Govt. of India), Chennai	04.02.2025
31.	Ms.Monika N and Mr.Ravi P Shaliwal	One day conference entitled, “Ayurvedic concept of Ama and Shotha in the context of disease and modern medicine	National	Jawaharlal Nehru University, New Delhi, in association with CARI, Punjabi Bagh, Delhi and CCRAS, M/o Ayush, GOI, New Delhi	24.02.2025
32.	Ms.Monika N and Mr.Ravi P Shaliwal	Five day hands-on Training Cum Workshop under “Centre of Excellence (CoE) on Ayurveda and Systems Medicine”	National	School of Biotechnology, School of Life Sciences and School of Computational and Integrative Sciences, Jawaharlal Nehru	25.02.2025 to 01.03. 2025

				University, New Delhi.	
33.	Dr. Swamy C T, Mr.M.Pratapa Reddy	5 days Capacity Building training Programme on “Quality Control and Standardization of ASU&H Drugs	National	PCIM&H, Ghaziabad, M/o Ayush, Govt. of India	3.03.2025 to 07.3.2025
34.	Mr.Ravi P Shaliwal Dr.Akansha Pandey	2 days Research Methodology and Scientific Writing by Virtual mode	National workshop	RARI, Gangtok, Sikkim.	05.03.2025 to 06.03.2025

11. NABL-RELATED ACTIVITIES

(National Accreditation Board for Testing and Calibration Laboratory)

1. Reassessment audit as per ISO/IEC 17025:2017

i) This Institute has been accredited with NABL vide **Certificate No. TC 5423,** the validity up to 11.02.2029 (Copy attached)

ii) NABL Reassessment Audit as per **ISO/IEC 17025: 2017** was held on 11th and 12th January 2025 by the NABL-nominated Technical team for a Total of **185 parameters** as applied for as per details given below:

a) Pharmacognosy/Botany - 07
b) Microbiology testing - 18
c) Veterinary testing - 23
(Pharmacology/Biochemistry)
d) Chemical - 137

All these testing parameters have been approved by NABL

2. Internal audit

- NABL Internal Audit as per ISO/IEC 17025:2017 in the institute during 22nd & 23rd July 2024 for biological laboratories and 24th and 25th July 2024 for Chemical laboratories.

3. Management Review Committee Meetings

- A Management Review Committee meeting was conducted on 29.07.2024 and 23.01.2023 regarding the pre- and post-reassessment audits

4. Quality Control Check

- Quality control check was done for 16 biochemical analytes, and 1 blood parameter was completed. Retesting of retained samples, intermediate checks, and blind testing were done regularly to meet the ISO/ IEC 17025: 2017 requirements for both biological and chemical laboratories.

5. Participation in Proficiency Testing Program

- Clinical proficiency testing programme for 17 analytes completed the 2 PT Cycle, and the results were sent electronically to Bio-Rad
- The microbiology lab has participated in the PT program and processed four samples for testing of specified microorganisms (*Escherichia coli*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Salmonella spp*.). The reports of the samples have been duly sent.

6. Calibration

- Internal calibration of instruments, glassware, critical consumables, and reference standards is done regularly to meet the ISO/IEC 17025:2017 requirements.
- External calibration for instruments was done periodically as per schedule.

7. Intra- Laboratory and Inter-laboratory

a) Biological Section

- Intra-laboratory comparison under scope for macroscopic study, single drug anatomy, and powder microscopy was carried out.
- Intra-laboratory Comparison for the scope of 16 plasma parameters was carried out.
- Intra-laboratory Comparison for the scope of 7 blood parameters was carried out under veterinary testing as per ISO/IEC-17025:2017 guidelines.
- Intra-laboratory Comparison for Total microbial plate count, Total yeast & mould count and Test for specified microorganisms (*Escherichia coli, Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Salmonella* spp.**)** was carried out.
- The calculation of 'Z-score' for different ILC coded samples completed.

b) Chemical Section:

- ILC was carried out. Calculation of the 'Z" score for different parameters of various ILC samples has been completed and communicated to respective participant laboratories.
- Intermediate checks for ICP-OES, HPTLC, AAS, flame photometer, electronic weighing balance, pH meter, and conductivity meter were carried out at scheduled timings.
- Critical consumables - Residue on evaporation, Specific gravity for nitric acid and ethanol sample. pH, conductivity, sulphate test, and chloride test completed for the distilled water. pH and Conductivity were completed for the deionized water.

8. Other NABL activities

- NABL-related documents such as Quality manual, Work instructions, List of Chemicals and Reagents, Calibration details of Instruments, List of Instruments, Role of Officers and staff, and Labels for all standards and solutions under scope were prepared.

12. DTL (DRUG TESTING LABORATORY) ACTIVITIES

DTL licence has been renewed under the State Licensing Authority, Govt. of Tamil Nadu for testing of Ayurveda and Siddha drugs up to the year 2026.

Chemistry

- 34 samples were analyzed for various parameters under the NABL scope

Botany/Pharmacognosy

- Pharmacognostical identification/authentication of samples– 37
- Aflatoxin - 56

Microbiology

- Accelerated Stability Studies – 11, IMR Project – 90, DTL Samples -71; Proficiency Testing – 4; NABL samples – 66

13. MAJOR EQUIPMENTS AVAILABLE IN THE INSTITUTE UP TO LAST FINANCIAL YEAR

S.No	Name of Equipment	Purpose for which it was purchased	Year of purchase	Condition of the Equipment
1	Refracto meter	Refractive index	1963	Good condition
2	Camera Lucida	Draw the actual size of the plant tissues	1964	Good condition
4	Dissecting microscope	Macroscopic observation	1972	Good condition
5	Vacuum pump	Vacuum purpose	1981	Good condition
7	BOD incubator	Incubation	2011	Good condition
9	Stage micrometer	Measure the plant tissues height	1990	Good condition
11	Ocular micrometer	Measure the plant tissues	1996	Good condition
14	Melting point apparatus	Melting point	1998 & 2012	Good condition

15	High performance thin layer chromatography (HPTLC)	Quantify/Qualify the drugs	1998	Good condition
17	Laminar air flow	Sterilization	2000	Good condition
18	TLC Photo Documentation	TLC visualisation	2000	Good condition
19	Atomic Absorption Spectrometer Graphite furnace	Heavy metals estimations	2002 2008	Good condition
20	Fluorescence microscope	Observe plant tissue	2002	Good condition
21	Semi Auto analyzer	Estimation of Na/K	2002	Good condition
22	Disintegration tester	Disintegration test	2009	Good condition
23	Friability test apparatus	Friability Test	2003	Good condition
24	Autoclave (1 No.)	Sterilization	2005	Good condition
27	Analgesiometer	Measure the pain threshold	2005	Good condition
28	Rotarod	CNS Study	2005	Good condition
29	Photo actometer	CNS Study	2005	Good condition
30	William maze	CNS Study	2005	Good condition
31	Environmental chamber	Shelf life study	2005	Good condition
32	Thermostat water bath.	Heating/extraction	2005	Good condition
33	Digital Electronic Weighing balance	Weigh the Chemicals	2009	Good condition
35	Digital conductivity meter	Check conductivity	2007	Good condition
36	Incubator	Incubation	2008	Good condition
37	HPTLC Visualizer	Photo documentation	2008	Good condition
38	Digital Flourimeter with printer	Estimation of fluorescent substance	2009	Good condition
42	Freeze dryer	Dry the extract	2009	Good condition
43	UV Chamber	TLC Visualisation	2009	Good condition
44	Laboratory Blender	Powdering	2009	Good condition
45	Rough Weighing balance	Weighing	2009	Good condition
46	Membrane filter	Filtration	2009	Good condition
47	Weighing balance	Weighing	2009	Good condition

48	Metabolic cages	Accommodate animals	2009	Good condition
52	Serological water bath	Storing serum	2009	Good condition
53	Vortex Shaker	Uniform shaking	2009	Good condition
54	Vertical Slab Gel electrophoresis	Separation of protein	2009	Good condition
55	Polyacrylamide Gel Electrophoresis	Separation of protein and isoenzymes	2009	Good condition
56	Starch gel Electrophoresis	Separation of protein	2009	Good condition
57	Swimming test apparatus	CNS Study	2009	Good condition
58	Pole climbing apparatus	CNS Study	2009	Good condition
59	Digital multichannel pipette	Pipetting	2009	Good condition
60	Histamine chamber	Anti asthmatic activity	2010	Good condition
62	LC-MS-MS system	Quantify/qualitative	2010	Good condition
63	Mercury analyzer	Analyze mercury	2010	Good condition
64	Tray dryer	Dry the drugs	2010	Good condition
65	Semi preparative HPLC	Quantify/Qualify the drugs	2010	Good condition
66	Hot plate	Heating	2011	Good condition
67	ATS-IV	TLC applicator	2011	Good condition
68	Manual capsule filling machine	Fill the capsule	2011	Good condition
69	Urine Analyzer	Analyze the urine	2011	Good condition
70	ELISA reader	Immunological study	2011	Good condition
71	ELISA washer	Immunological study	2011	Good condition
72	Digital Polari meter	Optical rotation	2011	Good condition
73	Single hole water bath	Heating/distillation	2012	Good condition
74	Tablet hardness apparatus	Hardness test	2010	Good condition
75	Bacterial incubator	Incubation	2010	Good condition
76	Digital hot top with magnetic stirrer	Heating solution with stirring	2011	Good condition
77	Nikon camera D7002	Take plant photographs	2011	Good condition

78	CO_2 cylinder with regulator	Animal sacrifice	2011	Good condition
79	Flame photometer	Estimation of Na/K	2012	Good condition
80	Helium and acetylene cylinder	AAS and LC-MS	2013	Good condition
81	Digital pH meter	Check pH	2013	Good condition
82	Digital Plethysmometer	Measure inflammation	2015	Good condition
83	Vertical Electrophoresis	Protein isolation	2015	Good condition
84	pH Meter	Measure pH	2015	Good condition
85	Roller blood mixture	Mixing the blood	2015	Good condition
86.	GPS Camera	Take plant photographs during the ethnomedicinal survey	2016	Good condition
87.	Laboratory Autoclave	Sterilization	2016	Good condition
88.	Environmental chamber	Storage of drugs	2016	Good condition
89.	Digital Hot Air Oven	Drying & Sterilization	2016	Good condition
90.	Double Door Industrial Autoclave	Sterilization of bedding material and cages	2016	Good condition
91	Refrigerated centrifuge with Rotor & stabilizer	Separation of Blood products	2017	Good condition
92	Refrigerator 253 litters	Storage of samples	2017	Good condition
93	Ear Tag Applicator	To apply tag into the ear	2017	Good condition
94	Shimadzu Balance AUX 220	Weighing	2017	Good condition
95	Computers-04 nos.	Documentation	2018	Good condition
96	UPS -04 nos.	Report preparation	2018	Good condition
97	Printer	For Computers	2018	Good condition
98	Mixer	Pulverising Plant Materials	2018	Good condition
99	Rabbit Cages-02 nos.	Animal Housing	2018	Good condition
100	Electronic Weighing Balance	Weigh Raw Drugs	2019	Good condition
101	Automated Clinical Biochemistry Analyzer (EM 200) with	Biochemical analysis of Samples	2019	Good condition

	Accessories (CPU, Monitor, Printer)			
102	Refrigerator	Store Samples	2019	Good condition
103	Stabilizer	For Refrigerator	2019	Good condition
104	Plastic Chairs-50 nos.	Seminar Hall	2019	Good condition
105	Crompton Wall Fan-02 nos.	Seminar Hall	2019	Good condition
106	Steel Top Iron Folding Table-10nos.	Seminar	2019	Good condition
107	Manual Rotary Microtome	For isolated animal tissue sectioning	2019	Good Condition
108	Haematology Analyser 5Part	For Blood sample analysis	2019	Good Condition
109	Analytical weighing Balance	For weighing of chemical and raw drug samples	2019	Good Condition
110	Stemi 508 Stereo microscope	For visualization of animal organs during minor surgery in live animals	2019	Good Condition
111	Stemi 508 Stereo microscope	For visualization and identification of plant sections	2019	Good Condition
112	pH meter	To measure pH	2020	Good Condition
113	Digital conductivity meter	To analyze purity of solutions	2020	Good Condition
114	Intelligent Infrared Thermometer	To measure temperature	2020	Good Condition
115	Disintegrator	Cutting of plsnt parts	2020	Good Condition
116	Mini Pulveriser with motor	To pulverize raw drugs	2020	Good Condition
117	Mixer	Pulverising Plant Materials	2020	Good condition
118	Mixer grinder	Grinding plant materials	2020	Good condition
119	Pills making machine (Manual)	To make pills	2020	Good condition
120	Fermentation vessels	To make Arista and Asava	2020	Good condition

121	(Hammer Mill)Jaw crusher	To crush big plant parts	2020	Good condition
122	End Runner mill	To fine grind Rasa drugs	2020	Good condition
123	Distillation unit	To distillate the drugs	2020	Good condition
124	Furnace (Bhatti)	To prepare medicines	2020	Good condition
125	UV Visible Spectrophotometer	Colorimetric estimations	2020	Good condition
126	Bench top Non refrigerated centrifuge	For separating blood components	2020	Good condition
127	Water bath (Digital temperature controlled)	Heating	2020	Good condition
128	Concentric Rings Bath	Heating	2020	Good condition
129	Electronic digital balance	To weigh chemicals	2020	Good condition
130	Semi automatic biochemistry analyser	To analyse blood samples	2020	Good condition
131	LCD display (European) certified refrigerated micro centrifuge	Centrifuge small quantities	2020	Good condition
132	Rotor	For separating blood components	2020	Good condition
133	GEL Documentation system	For DNA analysis	2020	Good condition
134.	Inductively coupled plasma Optical Emission spectroscopy	Analyzing samples in order to determine their chemical composition Metals and Minerals	2021	Good condition
135.	Herbal Distillation Plant	Preparation of Arkas	2021	Good condition
136.	Multi-Wave GO plus 50 HZ/Microwave digester	Sample digestion for elemental analysis	2021	Good condition
137.	HPTLC Instrument (CAMAG MA/CE)-Updating of software	HPTLC/TLC profile and quantitative analysis	2021	Good condition

138.	Whirlpool 330 L 3 star frost free double door Refrigerator	Store samples, specimens and medicines at a very specific temperature range	2021	Good condition
139.	Water Distillation still unit- Fully SS-4 LTR	Water purification and Distillation	2021	Good condition
140.	PH Meter	To measure the acidity and alkalinity of sample/fluid	2021	Good condition
141.	Digital Macroview otoscope with Desk charges & NICD Handle	Ear examination of Rat	2021	Good condition
142.	UV cabinet 2+1	TLC visualization	2021	Good condition
143.	Trinocular compound Microscope with camera & Phase	Microscopic studies Anatomical studies and powder microscopy	2021	Good condition
144.	Cardiovascular Pharmacology Experimental System	Isolated tissue study	2021	Good condition
145.	Hot Air Oven-91 L	Drying of plant to process the plant material	2021	Good condition
146.	Muffle Furnace	Used for high -temperature testing applications such as loss-on-ignition or ashing	2021	Good condition
147.	Deep Freezer -20^{o} C	To preserve and store blood samples, medicines and testing reagent	2022	Good condition
148.	Xerox Machine with System Attachment	Administration related work	2022	Good condition
149.	Water Distillation unit- 8 LTR	Water purification and Distillation	2022	Good condition
150.	Automated flash Chromatography system	Phytochemical isolation compounds	2022	Good condition

151.	Laboratory Island table for UFLC Instrument	To keep experiment UFLC for BP and ECG	2022	Good condition
152.	Hot Air Oven-150 L	Drying of plant to process the plant material	2022	Good condition
153.	Hot Air Oven-91 L	Glassware drying and sterilization	2022	Good condition
154.	Refrigerator Double Door	Storage of samples	2022	Good condition
155.	Rotavapor	Removal of solvents and drying	2022	Good condition
156.	UV-Visible Spectrophotometer	Estimation of different classes of chemical compounds in AYUSH products	2022	Good condition
157.	Radical Trinocular Microscope	Immuno histopathology study	2022	Good condition
158.	UFLC and Sonicator	Solvent prep. Analytical study	2022	Good condition
159.	Isoflurane Anesthesia Chamber	Animal Anesthesia	2022	Good condition
160.	Portable Slit Lamp HC-9	Examination of eye	2022	Good condition
161.	Hot Air Oven-91 L	To use drying	2022	Good condition
162.	Air curtains	To make dust free before entry into the working area	2023	Good condition
163.	Clean air Garment storage	Sterilization of the garments	2023	Good condition
164.	Analytical balance	Measuring the samples	2023	Good condition
165.	pH meter	Measuring pH of samples	2023	Good condition
166.	Pass box	Transfer the samples without any external contamination	2023	Good condition
167.	Bacterialogical incubator	Incubation of media	2023	Good condition
168.	Biosafety level 2 cabinet with stand	To carry out microbial analysis	2023	Good condition

169.	Deep freezer	Storage of samples	2023	Good condition
170.	Mini Centrifuge	Centrifugation of samples	2023	Good condition
171.	Micropipettes	Pipetting of samples		Good condition
172.	Colony counter	To count the colonies	2023	Good condition
173.	UV Chamber	Disinfection of samples	2023	Good condition
174.	Vortex Cycler	Mixing the samples	2023	Good condition
175.	Microwave oven	Sterlization and incubation	2023	Good condition
176.	Ultra pure water purification system	For distilled water	2023	Good condition
177.	Water purifier	Drinking Water		Good condition
178.	Air conditioner	For maintaining cool temperature	2022	Good condition
179.	LED Monitor	To monitor the animal house activities	2023	Good condition
180.	Wifi receiver & web cam	For internet access to all computers in admn section	2023	Good condition
181.	Wireless UHF dual channel receiver with two hand held mike and audio splitter	To amplify the voice in Conference hall	2023	Good condition
182.	Epson dot matrix printer	Printing the documents	2023	Good condition
183.	Computer	For documentation of data	2023	Good condition
184.	Sphygnomanometer	To monitor blood pressure	2023	Good condition
185.	Microtone Stethescope	To listen the heart beat	2023	Good condition
186.	Single lid hard top chest freezer /cooler withstabalizer	Storage of samples	2022	Good condition
187.	Concentric ring 6 holes water bath with cover tray	To evaporate of samples	2023	Good condition
188.	Hp desktop with CPU Webcam	For documentation of data	2022	Good condition
189.	Canon EOS MSO MK11 with SD card	For capturing and document images	2022	Good condition

	Adapter for canon camera			
190.	Objective lenses		2022	Good condition
191.	Water still	Distilled water	2022	Good condition
192.	96 well plate manifold, tray reservoir, basic ultra turax disperser and Oasis HLB plate for HPLC	For HPLC analysis	2022	Good condition
193.	Scanner Microtek object Scan 1600	For documentation of images	2022	Good condition
194.	Epson Multifuction machine		2023	Good condition
195.	Hot plate magnetic stirrer	Uniform heating and stirring	2022&2023	Good condition
196.	Environment test chamber with stabilizer		2022	Good condition
197.	Microplate spectrophotometer with computer attachment	For analysis of samples	2023	Good condition
198.	Hi loop electric sterilizer	Sterilization of inoculation loops, needles and instruments	2023	Good condition
199.	Vortex mixture	Mixing the samples	2023	Good condition
200.	Eppendorf research R plus Channel variable pipette	Transfer of samples	2023	Good condition
201.	C3 single channel variable volume pipette	Transfer of samples	2023	Good condition
202.	Mini vertical electrophoresis apparatus, Midi semi dry blotter and electrophoresis power supply	For running precast or handcast polyacrylamide gels	2023	Good condition

203.	Muffle furnace	Rapid high temperature heating to obtain ash for analysis	2023	Good condition
204.	Incubator	Regulate conditions such as temperature, humidity and to grow, maintain microbiological cultures	2023	Good condition
205.	HPLC	Analysis of samples	2023	Good condition
206.	Digital dry bath	To thaw, boil, incubate and warm samples for use in molecular biology,	2023	Good condition
207.	Micropipettes stand and cooler rack	To hold micropipette	2023	Good condition
208.	Micropipettes	To transfer the samples	2023	Good condition
209.	Flame photometer with compressor	Estimation of Sodium, Potassium, Lithium, and Calcium	2023	Good condition
210.	Nitrogen evaporator	Inert drying of samples to analyse under HPLC	2022	Good condition
211.	Basic ultra Turaxdisperser (Tisssue homogenizer)	Homogenisationof animal tissue samples	2022	Good condition
212.	Cooling centrifuge with 3 rotors	Centrifugation of samples	2023	Good condition
213.	HP desktop, UPS, CPU and Epson printer	Pritnting the documents	2023	Good condition
214.	Trinocular Compound Microscope with phase contrast and camera attached documentation system	Observation of stained slides and documentation of images	2023	Good condition

14. LIST OF EQUIPMENT PURCHASED IN THE REPORTING YEAR (2024-2025)

S. No	Name of the Equipment	Nos.	Purpose for which it was purchased	Year of purchase	Condition of the equipment	Remarks
1.	Laboratory Instruments Table	04	To keep Instruments in the Animal House	2024	Good condition	IMR project
2.	GPS Device	01	To take plant photographs with GPS Data	2024	Good condition	IMR project
3.	Computer for grip Strength Meter	01	Attached with Instruments	2024	Good condition	IMR project
4.	Grip Strength Meter	01	Pharmacology evaluation	2024	Good condition	IMR project
5.	Rack for Rat cages, Sliding type to hold 25 cages	01	To hold the rack cages	2024	Good condition	IMR project
6.	Lab-Refrigerated Incubator Shaker	01	Microbial Growth accessment	2024	Good condition	IMR project
7.	Gel Documentation System with CMOS Camera	01	To view DNA Gels	2024	Good condition	IMR project
8.	Vertical Electrophoresis System	01	SDS-PAGE Analysis	2024	Good condition	IMR project
9.	PCR Machine (Semi-Quantitative)	01	Amplification of DNA	2024	Good condition	IMR project
10.	Horizontal Electrophoresis System	01	DNA Isolation	2024	Good condition	IMR project
11.	Fume Hood	01	For Histoathlogy Processing	2024	Good condition	IMR project
12.	Mixer Grinder	01	To Grind Plant Raw Materials	2024	Good condition	IMR project
13.	Metabolic Cages for Small Rodent	01	Collection of Urine from Rats	2024	Good condition	IMR project

	without stand , Rack Suitable for 6 metabolic cages		and to Hold the Metabolic Cages			
14.	Semi automated urine strip analyser	01	Analysis of Urine parameters	2024	Good condition	IMR project
15.	Four Channel Coagulation Analyser	01	For Coagulation Study	2024	Good condition	IMR project
16.	Polycam VC Cam	01	For Mini Coference Room to attend Meetings	2024	Good condition	Institute Budget
17.	3x Telephone Handset	03	Official Use	2024	Good condition	Institute Budget
18.	Pedestal Fan	01	For Animal House	2024	Good condition	Institute Budget
19.	Name Board of Staff	01	Official Use	2024	-	Institute Budget
20.	Rat cage Polypropylene = 70 Nos Mice/Rat PP Bottle 300ml =70 Nos Rack for Rat cages Sliding type = 1 No	01	To Maintain Animals in the Animal House	2024	Good condition	IMR project
21.	Animal Behavioral Tracking System	01	To study the Animal behavior	2024	Good condition	IMR project
22.	Actimeter with Monotoring System	01	To study the Animal behavior	2024	Good condition	IMR project
23.	Ceramic Hot Plate Stirrer	01	Tempature Depentant Studies	2024	Good condition	IMR project
24.	Bath Concentric Rings-Digital Water Bath	01	Preparation of Plant Extracts	2025	Good condition	IMR project

25.	Rack for PP Rat cages-02 Nos	01	To hold the rack cages	2024	Good condition	IMR project
26.	Printer for lab instruments	01	To print data	2024	Good condition	IMR project
27.	Workstation for lab instruments	01	Workstation attached lab Instruments	2024	Good condition	IMR project
28.	Microscopy Camera	01	Camera attached with the Microscope	2024	Good condition	IMR project
29.	Computer for Microscopy Camera	01	Computer attached with a Microscope	2024	Good condition	IMR project
30.	Ventilater	01	For Animal study	2024	Good condition	IMR project
31.	Doppler Blood Flow Monitoring System		For Animal study	2024	Good condition	IMR project
32.	Surgical Platform for Rats	01	For Animal study	2024	Good condition	IMR project
33.	Digital Dry Bath	01	For Heating purpose	2024	Good condition	IMR project
34.	Fume Hood	01	To exhaust ambful fumes particulate matter	2024	Good condition	IMR project
35.	Analytical Balance with Stablo	01	For weighing chemicals	2024	Good condition	IMR project
36.	Micropipette Set with stand	01	Micropipetting	2024	Good condition	IMR project
37.	Heating Mantle		To heat liquids and classware	2024	Good condition	IMR project
38.	Deep freezer(-80)	01	For storage of biological samples	2024	Good condition	IMR project
39.	Portable Alcohol Meter	01	Blood alcohol concentration analysis	2024	Good condition	IMR project
40.	HPTLC	01	Qualitative estimation of phytoconstituents	2024	Good condition	IMR project

41. .	LED Video Wall customized	01	For the display of activities & achievements for public awareness	2025	Good condition	Institute Budget
42. .	Secure Eye Aadhar-Based Biometric Machine	01	For proper maintenance of the attendance of staff.	2025	Good condition	Institute Budget

THRCOP - NA

Survey of Medicinal Plant – NA

Cultivation of Medicinal Plant – NA

Chemistry Drug Standardisation – Refer to pages no 8-16

Botany/Pharmacognosy, Microbiology & Pharmacy –Refer to pages no 16-20

Pharmacology& Biochemistry – Refer to page no 20-24

Literature Research –25

Family Welfare & RCH etc. – NA

15. PHOTOGRAPHS RELATED TO INSTITUTE ACTIVITY(GLIMPSES)

Fire Safety Week celebration, a demo of safety measures to be taken during accidents has been showcased on 18-04-2024

International Yoga Day Celebration (21.06.2024)

Awareness Lecture on National Organ Donation Day (03.08.2024)

Pustak Samiksha Competition, as a part of Rajbhasha Celebrations at CSMCARI, Chennai (08.08.2024)

Independence Day celebration (15.08.2024)

Various Activities on Hindi Fortnight Celebration (14th - 30th September 2024)

scrap art competition (25.09.2024)

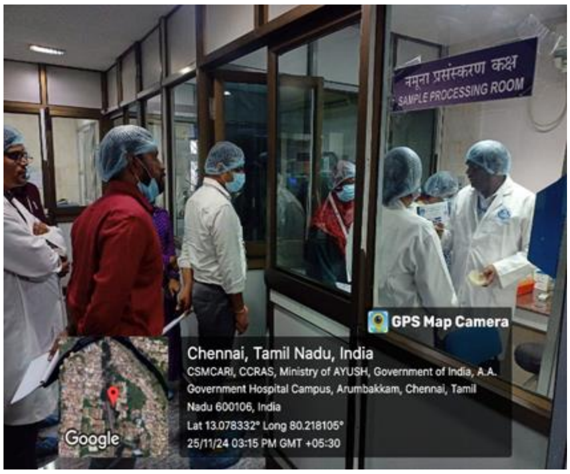
100 days achievement (28.10.2024)

Swacchatta hi seva conducted in the institute (10th September - 2nd October 2024)

Medical Camp and Medicinal Plant Distribution was conducted at Sumaitangi Trust, Perumbakkam, Chennai as part of 9th Ayurveda day (25.10.2024)

Medical camp for CSMCARI staff at the Institute as part of 9th Ayurveda day (26.10.2024)

Khadi Mahotsav campaign and Tree plantation in the campus on World Environment Day (29.10.2024)



Conducted a 6-day CME programme for AYUSH Doctors/ Scientists (25^{th}-30^{th} November 2024)

Pledge on National Constitution Day (26.11.2024)

Sensitisation program at National Institute of Siddha

Valedictory function of Vigilance Awareness Week

Republic Day Celebration

Har Ghar Tiranga

Meeting on the development of GLP facility at animal house (22.01.2025)

Women's Day Celebration (11.03.2025)

Hindi Workshop (11.03.2025)

NABL training programme for CSMCARI employees & NABL External audit team

Quiz & Debate competition held as part of 9th Ayurveda day for School students

Quiz & Debate competition held as part of 9th Ayurveda day for college students

Poshanmaah Campaign conducted for Anganwadi workers

Non-flame cooking Competition during Poshan Pakhwada

16. MEETINGS

- Dr. S. Chitra, Assistant Director Incharge, attended a meeting regarding Ayurveda day celebrations on 16.10.2024 through VC mode.
- Dr. S. Chitra, Assistant Director, Incharge, CSMCARI, Chennai attended the 2-day Manthan meeting at CARI, Kolkata, on 30th September to 1st October 2024.
- Dr. S. Chitra, Assistant Director, Incharge, CSMCARI, Chennai, visited Tamil Nadu Secretariat and met Shri. Nagarajan IAS (Finance) and Ms. Amutha IAS (Revenue) regarding the acquisition of land for Ayurveda Hospital establishment for ALRARI and setting up of Medicinal plant garden for CSMCARI, Chennai on the following days: 28.08.2024, 02.09.2024, 08.10.2024, 06.11.2024, 11.11.2024 and 27.12.2024.
- The Post Avalokana-2025 debrief was conducted by Dr. S. Chitra, Assistant Director Incharge, on 24.03.2025 with all Officers and staff members to review the key takeaways and outcomes from the recently concluded event at CCRAS. New Delhi. The session focused on assessing the effectiveness of planning and execution, identifying areas of improvement, and acknowledging the contributions of the CSMCARI team.
- Dr. S. Chitra, Assistant Director Incharge, and Ms. Monika attended the 4th Sectional Committee meeting of AIYD-05 conducted by BIS, New Delhi.

17. UPGRADATION OF GOOD LABORATORY PRACTICE FACILITY TO ANIMAL HOUSE

A meeting was conducted under the chairmanship of the Deputy Director General, CCRAS, and officials from the headquarters by the virtual mode and the following officials such as Dr. S. Chitra, Assistant Director, Incharge, along with Dr. R.Arunadevi, Research Officer (Pharmacology), Dr. K.C.Haritha, Assistant Research Officer (Pharmacology), Ms. N.Monika, Assistant Research Officer (Pharmacology), and Ms. M. Thenmozhi, Assistant Research Officer (Pharmacology), along with Mr. Subramaniashwar Rao, Executive Engineer(Civil), Dr. Chandrashekar Rao, Assistant Engineer (Electrical) and members from CPWD Chennai were attended the meeting on the upgradation of GLP certification process for the CSMCARI animal house on 22.01.2025.

18. SIGNIFICANT ACHIEVEMENTS

- Herbarium at CSMCARI, Chennai was indexed under Index Herbariorum with code CSMH (08.12.2024).
- NABL Reassessment and Accreditation Extension of up to 185 Scope parameters, including Pesticides and Aflatoxins.
- Department of Botany is incorporated under the NABL Scope
- MoU Signed between Captain Srinivasa Murthy Central Ayurveda Research Institute (CSMCARI), Chennai, and the Commissionerate of Indian Medicine and Homoeopathy (CIM&H), Chennai

19. STAFF NEWS

a. Retirement

- Dr. R. Ilavarasan, Assistant Director Incharge Captain Srinivasa Murthy Central Ayurveda Research Institute, CCRAS, M/o Ayush, Government of India, a superannuation w.e.f. 31.07.2024.
- Sh. S. Ravichandran, Animal Attendant, a superannuation w.e.f. 31.05.2024.

b. Transfer

- Dr. Aswathi Mohan P, Research Officer (Ayurveda) got transferred to NARIP, Chenthuruthy and relieved from this institute on 31.03.2024
- Mr. Vishnu K. Walsan, Research Officer (Botany), transferred from Regional Ayurveda Research Institute, Dimapur, to Department of Botany, CSMCARI, Chennai on 08.08.2024

c. New assignment

- Dr. S. Chitra, Assistant Director (Biochemistry), is promoted to be an Assistant Director In-charge, Captain Srinivasa Murthy Central Ayurveda Research Institute, Chennai on 01.08.2024

20. INFRASTRUCTURE DEVELOPMENT

a. Sophisticated equipment purchased.

- Deep freezer (Model-TDE40080FV/Thermo Scientific) received and installed on 19.02.2025.
- HPTLC instrument (Model-CAMAG Automatic TLC sampler 4) received and installed on 21.03.2025.
- Small Animal ventilator with blood flow meter, Digital Actimeter, grip strength meter, Anymaze with video tracking software, Necropsy table, Fume hood, Coagulation analyser, Urine analyser.

b. New facilities made available

- Video Conferencing setup completed
- The e-Office facility is made available for officers/staff
- LED display monitor purchased and installed in the building entrance to enhance the visibility of the institute's activity to the public.

21. OFFICIAL LANGUAGE - RELATED ACTIVITIES

1. Hindi Workshop & Fortnight Celebration

- Hindi pakhwada was celebrated from 14th to 30th September 2024 and conducted various competitions under Hindi Pakhwada like Hindi dictation, Essay writing, Hindi poem recitation, Noting and Drafting, Quiz, Antakshari, and Debate competitions were held during Hindi Pakhwada followed by a valedictory function on 28th September, 2024, during which prizes were distributed to the winners during this event.

- Quarterly Hindi workshop was conducted periodically on 27th June, 2024, 24th September, 2024, 31st December, 2024 and 11th March, 2025. Mrs. Smt. Neeraja Sridharan, retired Hindi Officer, CLRI, was the chief guest on 11th March, 2025.

2. Other Hindi Activities

- Dr. S. Chitra, Assistant Director Incharge, Dr. Soumya MC and K. Nepolian Hindi assistant attended the 67th TOLIC meeting conducted at NIOT, Pallikaranai on 07.08.2024
- Mr. Ravi P Shaliwal (ARO, Biotechnology) received the Second prize in "Hindi Sabdshakti Pratiyogita" organised by TOLIC Chennai on 29.08.2024
- Dr. S. Chitra, Assistant Director Incharge, CSMCARI, Chennai attended OLIC meeting on 12.09.2024.
- Dr. Soumya. MC, Research Officer (Ay.). attended 2 days meeting, in connection with 'Hindi Diwas Evam Chaturdh Akhil Rajbhasha Sammelan' Organised by Department of Official Language, Ministry of Home Affairs at Bharat Mandapam, New Delhi on 14.09.2024 & 15.9.2024
- Mr Ravi P Shaliwal (ARO, Biotech) participated in the "Hindi Quiz competition" organised by TOLIC Chennai on 25.10.2024 and got the Motivational Prize.
- The 68th Town Official Language Implementation Committee (TOLIC) meeting was conducted at CSIR-SERC Taramani, Chennai. The programme was attended by Dr. S. Chitra, Assistant Director Incharge, Dr. KC. Haritha, ARO (Pharmacology), Mrs. M. Thenmozhi, ARO (Pharmacology), Mr. Ravi Prakash Shaliwal ARO (Biotechnology), and Mr. K. Nepoliyan, Hindi Assistant from CSMCARI, Chennai.
- Dr. KC. Haritha, ARO (Pharmacology), received 2nd prize as a Cash award and Certificate of Appreciation for the book review. Mrs. M. Themozhi, ARO (Pharmacology), received a Cash Prize and Certificate of Appreciation for the Word Power and Quiz competition and Mr. Ravi P Shaliwal, ARO (Biotechnology), received a Cash Prize and Certificate of Appreciation for Hindi waak, shabd Sakti, and quiz competition organized by TOLIC Chennai 600 003.
- The 4th Quarter OLIC meeting was conducted on 24.02.2025 at the Institute level.
- Rajbhasha e-nerekshan was conducted on 12.02.2025 by the Hindi Section of the Council, New Delhi

22. MEDIA COVERAGE

CCRAS in Media

MoU signed
between
CCRAS, CIM&H

6-Day CME for Ayush teachers / Scientists on Ayurveda R&D Trends

CHENNAI

The Captain Srinivasa Murthy Central Ayurveda Research Institute is organising a 6-Day CME for Ayush Teachers / Scientists on "Current trends in R & D, Modern Scientific Advances and Technology for Scientific Understanding and Promotion of Ayush System" aimed at advancing knowledge and skills in the field of Ayurveda. This programme, inaugurated on 25.11.2024 will go till 30.11.2024, brought together a diverse group of medical professionals, researchers, and students throughout the India.

The CME training programme featured an array of expert speakers and workshops covering various aspects of Ayurveda, including modern research methodologies, innovative techniques, and the integration of traditional practices with contemporary medical sciences. Participants engaged in interactive sessions, hands-on training, and collaborative discussions designed to enhance their clinical practice and research capabilities.

Dr. Elumalai, Registrar, University of Madras graced the occasion as a Chief Guest and emphasised that medicinal plant research becomes the torch bearer for current researchers after COVID. Dr. A.K. Meena, Assitant Director (Chemistry), CCRAS Hqr, New Delhi delivered the keynote address, highlighting the importance of ongoing education and the role of Ayurveda in promoting holistic health and well-being and also delivered the lecture on CCRAS Contribution in Research and Development of Ayurvedic Medicines. He explained various research carried out under Ministry of Ayush, Govt. of India. Dr. Hanuman Prasad Sharma, In-Charge, Bio analytics Facility, CCRF, All India Institute of Medical Sciences, New Delhi delivered the lecture on topic Utility of LC-MS/MS in Quality Control of Ayurvedic formulations.

"This training programme is a testament to our commitment to advancing the field of Ayurveda through continuous learning and research," said Dr. S. Chitra, Assistant Director In-charge, CSMCARI, CCRAS, Chennai in her welcome address and also highlighted various Research activities currently going on in this Institute.

The vote of thanks was given by Dr. G. Kusuma, Research Officer, (Ayurveda), CSMCARI, CCRAS, who expressed their gratitude for the participants and staff members/Media persons. "The insights and practical knowledge gained during this programme will be invaluable.

MoU signed between CCRAS and ISM & H

6-Day CME

News link published in media on MoU's made by CSMCARI, Chennai.

a. (Any other, such as Video, link to be provided): 5 Press releases

- https://pib.gov.in/PressReleasePage.aspx?PRID=2029682
- https://insamachar.com/memorandum-of-understanding-mou-signed-between-ccras-csmcari-and-cimh-chennai/
- https://www.socialnews.xyz/2024/06/30/ccras-csmcari-and-cimh-partner-to-boost-indian-medicine-and-homoeopathy/
- https://tamil.asianetnews.com/tamilnadu-chennai/rs-14-25-crore-worth-medical-equipment-for-kalainar-centenary-hospital-sgb-sfw5x7
- https://odishatv.in/news/health/mou-signed-between-ccras-csmcari-and-cim-h-to-boost-indian-medicine-and-homoeopathy-238192

23. ACADEMIC ACTIVITIES

i. Sh.M. Prathapa Reddy, ARO (Chem.) given 5 days Training to Mr. Sharat MS, SRF (Chemistry) of CARI-Bengaluru from 20.08.2024 to 24.08.2024 on Loss on Drying at 105°C, pH, Water Soluble Extractive value, Alcohol Soluble Extractive value, Total Ash, Acid-insoluble ash, HPTLC profile and HPTLC instrument usage, Heavy metal analysis by ICP-OES and basics of HPLC.

ii. Dr. S. Chitra, Assistant Director Incharge, CSMCARI, Chennai attended the doctoral committee meeting for the Ph.D student at Dr. MGR University, Chennai on 13.11.2024.

iii. Dr. S. Chitra, Assistant Director, Incharge of CSMCARI, Chennai, attended for the Ph.D. public Viva-Voce as a doctoral committee member held at Sri Ramachandra Medical College, Chennai on 18.11.2024.

iv. Dr. G. Kusuma, Research Officer (Ay.)/S-4, as a Member, visited Achanta Lakshmipathi Regional Ayurveda Research Institute, Chennai, for the selection of the candidate, Project Manager under the project Public Health Interest on 09.12.2024.

v. Dr. Soumya. M.C., Research Officer (Ay.), as a Member visited Achanta Lakshmipathi Regional Ayurveda Research Institute, Chennai for the selection of a candidate, Project Manager under PHI project on 09.01.2025.

vi. Dr. G. Kusuma, Research Officer (Ay.)/S-4, nominated by ALRARI, Chennai as a selection committee member for the selection of SRF under the project THCRP held on 27.01.2025.

vii. Dr.S. Chitra, Assistant Director, Incharge, CSMCARI, Chennai was invited as an external expert for the selection of a consultant on a contract basis at ALRARI Chennai on 6.02.2025.

24. 9TH AYURVEDA DAY CELEBRATION

i. A Medical camp was conducted at Sumaitangi Trust, Perumbakkam, Chennai as a measure of engaging community service centre in celebration of Ayurveda Day (Jan Bhagidari) by Medical team of the Institute comprising Dr.G.Kusuma, Research Officer (Ay.), Dr.Soumya M.C, Research Officer (Ay.), Dr.Anshu Wali, Research Assistant (Biochemistry), Dr.Gudi Lalitha, Senior Research Fellow (Ayurveda) andall other supporting staff viz Ms.Annapoorani, Mr.T.Dinesh, Mr.Vamsi Krishna, Mr.Anbu, and Ms.Selva Kumari, organised Medical camp on 25.10.2024.

ii. A Medical camp was conducted for the institute staff and their families in which general health check-ups, including blood sugar, haemoglobin, blood pressure, and BMR were conducted and necessary medicines were distributed on 26.10.2024.

iii. A Healthy food recipe preparation competition was carried out among the staff of CSMCARI. Around 7 teams have participated, each team comprising 2 to 5 participants. The staff prepared healthy and innovative Ayurveda recipes. All the staff actively participated with great enthusiasm and the team that presented 20 varieties of tasty, healthy food recipes with unique ingredients and innovative ideas received the first prize.

iv. Around 150 Medicinal Plants were distributed to the general public in the Institute premises as a part of 9th Ayurveda day celebrations on 29.10.2024

25. POSHAN MAAH

i. 6th Rashtriya Poshan Maah was celebrated at the institute during which a seminar was organized for Anganwadi Workers on "Adopting Healthy Lifestyles through AYUSH Practices." emphasizing the critical role of nutrition in sustaining life. This seminar aimed to empower Anganwadi Workers with knowledge and practices conducive to promoting holistic health and well-being in the communities they serve.

ii. Officers and staff attended online webinar on Awareness and orientation programme on POSH act for AYUSH professionals organised by CCRUM, Ministry of Ayush, on 10.09.2024.

26. VISIT

i. Smt. Mythili K. Rajendran IAS, Commissioner, Indian Medicine and Homeopathy, Government of Tamil Nadu has visited the Institute on 06/05/2024.

ii. Dr. Debashis Panda, Joint Advisor (Ay.), Min of Ayush, & Dr. S.D. Muralidass, RO (S), and officials from the Directorate of Indian Medicine and Homoeopathy, Tamil Nadu, visited on 30.08. 2024

iii. There were 47 BAMS Students and staff from Sri Sairam Ayurveda Medical College and Research Center, Chennai visited the CSMCARI, Chennai, on 18.11.2024.

iv. B. Pharm final year students from Sri Shanmugha College of Pharmacy, Sankari, Salem were given Induction training related to Instrumentation facilities, Animal House visit at the Department of Pharmacology, and Macroscopical identification of sample specimens at the Department of Pharmacognosy on 18.02.2025

27. VIGILANCE AWARENESS WEEK

- “Vigilance Awareness Week” organized by CSMCARI on 28-10-2024 and Institute in-charge administered the Integrity Pledge to all Officers/staff and Shri .P. Thomas, Commandant (Retired CRPF) honored the event as a Chief guest.

28. SWACHHATA HI SEVA A PAKHWADA

- All Officers & Staff participated in a massive cleanliness drive, Swachtata pakhwada-Swachata hi Sewa 2024 as a tribute to Mahatma Gandhi on the eve of his birthday on 27-09-2024 to 01.10.2024.

29. CME PROGRAMME

- As per the direction/guidance of CCRAS, a 6-day CME programme entitled, “ Current trends in R&D, Modern Scientific Advances and Technology for Scientific Understanding and Promotion of Ayush System” sponsored by the Ministry of Ayush, New Delhi under Ayurgyan Scheme was conducted from 25.11.2024 to 30.11.2024.
- A total of 26 participants from various Institutes /Colleges attended the programme, and subject experts from renowned Institutes/Universities were also invited to deliver Lectures, and all officers and staff of these Institutes also attended and practical session on various technical activities were demonstrated to the attendees. The inaugural function of the CME program was conducted at this Institute on 25.11.2024 and inaugurated by Dr. Elumalai, Registrar of the University of Madras, as the Chief Guest and the CME ended with a Valedictroy function graced by Dr. Sasibhushan Vedula, Sr. Manager, Sriveda Tattva, Bengaluru. Besides the above, all officers and staff of this Institute have also attended the function.

30.TB - ELIMINATION PROGRAMME

An awareness class on NTE was conducted in the institute for official staff by the state nodal health department, NTEP Zone 8 of Greater Chennai on 17.02.2025.

31. FIRE SAFETY WEEK

In compliance of CCRAS HQ's direction, Fire Safety Week has been observed under “Awareness in fire safety for growth of national infrastructure (AGNI)” in this Institute on 18-04-2024, Fire Safety officer, Chennai was invited to deliver a lecture and demonstration. All Officers /Staff of this Institute have enthusiastically participated in the program.

32. PRAKRITI ASSESSMENT

Prakriti Assessment of 100 volunteers was carried out through CCRAS AYUR Prakriti Portal in connection with Desh ka Prakriti Parikshan Abhiyan and Issued Prakriti Card for 75 healthy volunteers by Dr. G. Kusuma and Dr. Soumya. M.C and submitted the report.

33. OTHER ACTIVITIES

i. IAEC meeting was conducted on 30.05.2024, for the IMR project proposals allotted by the Council. 12 proposals were approved and one was renewed.
ii. All officers/ staff participated in the No Tobacco Day pledge on 31.05.2024
iii. All officers attended the lecture on the updated National Pension Scheme presented by AXIS Bank officials, organized by CSMCARI, Chennai on 4.6.2024.
iv. All officers/ staff participated in the World Accreditation Day on 10.06.2024.
v. All officers/ staff participated in the Blood Donation Day Pledge on 14.06.2024
vi. All officers/ staff participated in the Yoga Day on 21.06.2024
vii. All officers/ staff participated in the Organ Donation Day awareness lecture on 03.08.2024

viii. All officers/ staff participated in the Har ghar Tiranga Pledge on 14.08.2024.

ix. 100 days Achievements of the Ministry of Ayush and the activities of CSMCARI Chennai published in three Regional newspapers, Makkalkaruthu, MakkalVelicham and Business Minutes on 29.10.2024.

x. Dr. S. Chitra, Assistant Director Incharge along with all officers attended a sensitization programme on empanelment of AYUSH hospitals for insurance at National Institute of Siddha,, Chennai under the chairmanship of Prof. Vd. Kousthubha Upadhyaya, Advisor (Ayu.), Dr. Debashis Panda, Joint Advisor (Ay.), M/o Ayush, and Director from Rastriya Ayurved Vidhyapeet, Drug Policy Section, Government of India on 18.11.2024.

xi. .All officers/ staff participated in Constitution Day (Samvidhan Divas) pledge on 26.11.2024.