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CCRAS - CENTRAL AYURVEDA RESEARCH INSTITUTE, KOLKATA  
(An Autonomous Organisation under CCRAS  
Ministry of AYUSH, Government of India)  
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## **RTI APPLICATION FORM**

1. Particulars of the Applicant:

(a) Name :

(b) Address :

(c) E-mail address :

(d) Phone/ Fax. No. :

2. Date of Submission of Application:

3. Subject Matter :

4. Details of Information requested :

5. Period to which the information relates :

6. Fee enclosed (in cash/DD/Banker's cheque/IPO) :

7. Due date by which information is to be furnished (30 days from submission of application) :

8. How the applicant would like his information to be sent :

(a) By post :

(b) To be collected by hand :

(c) By e- mail :

(d) By fax :

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Particulars of Organization. Functions and Duties

**CENTRAL AYURVEDA RESEARCH INSTITUTE, KOLKATA  
(CENTRAL COUNCIL FOR RESEARCH IN AYURVEDIC SCIENCES)**

**Central Ayurveda Research Institute (CARI), Kolkata** situated at 4-CN Block, Sector-V, Bidhannagar, Kolkata- 700091 is a premier Institute under Central council for Research in Ayurvedic Sciences, New Delhi, Ministry of AYUSH, Government of India and dedicated to the research of Ayurveda. This Institute has started its journey as the project named '**Composite Drug Research Scheme (CDRS)**' at Shyamadas Vaidya Shastra Peeth, 294/3/1, Acharya Prafulla Chandra Road, Kolkata- 700009 (presently known as Institute of Post Graduate Ayurvedic Education & Research) on 1968 under leadership of KJ. S. K. Roy. In 1972, this Institute had been shifted to its rented house at Laxmibilash Bhawan, Jagannath Datta Lane, Kolkata as **Regional Research Institute (Ayurveda) [RRI(Ay.)]** and started its activities through OPD, IPD and **Pharmacy**.

RRI(Ay.), Kolkata was shifted to its own building along with 03 acres premise on 17.03.1997 which was provided by the Govt. of West Bengal at present location which is now considered as prime area of the city. RRI(Ay.), Kolkata had been upgraded as **Central Research Institute (Ayurveda) [CRI(Ay.)]**, Kolkata on 01.11.1999 with the mandate of drug development and different units of **Chemistry, Pharmacognosy and Pharmacology** were amalgamated under the single umbrella. Research Scheme for Screening of Contraceptive Agents (RSSCA) Unit, Orissa, University of Agriculture and Technology, Bhubaneswar, Pharmacological Research Unit, Dept. of Pharmacology, IMS, BHU, Varanasi and Pharmacological Research Units (Dept. of Pharmacology, University College of Medicine and University of Calcutta, Kolkata) were merged at CRIA, Kolkata under Dept. of Pharmacology. Pharmacognosy Research Unit at **Dept. of Botany**, University of Calcutta (Ballygunge campus) was shifted at the new campus as Dept. of Pharmacognosy and Chemical Research Unit at Dept. of Chemistry, University of Calcutta (Rajabazar campus) were also shifted to CRI (Ay.) on 21.03.1997 during the same period.

In the month of November, 2009, the Institute was re-named by the Department of AYUSH as **National Research Institute of Ayurvedic Drug Development (NRIADD)**, Kolkata with new mandates considering its huge contribution and leadership in the drug development in Ayurvedic sciences. This Institute again renamed as Central Ayurveda Research Institute for Drug Development, Kolkata on 12<sup>th</sup> April 2016 with revised mandate and activities. CARIDD was again renamed as **Central Ayurveda Research Institute (CARI)** w.e.f. 26.12.2020 and it is presently functioning with six departments *i.e.* Hospital (OPD & 20 beds IPD); Pathology, Biochemistry and Microbiology; Pharmacognosy; Chemistry; Pharmacology and Histopathology; Pharmacy. Multistoried new building (B+G+7) work is in progress in the same premises.

**VISION:**

- To develop an Institute as best Institute or Institute of Excellence into a dynamic, vibrant and model research organization for undertaking more and more coordinating joint research ventures, aiding and promoting research in Ayurveda.
- To focus research on the need of masses with a view to emerging health requirement of India.
- To attain global leadership in Ayurveda research for promotion of health, preventive / treatment management for lifestyle diseases and metabolic disorders.
- To bring modern scientific knowledge, technology to validate Ayurveda in scientific manner for welfare of the ailing humanity.
- To develop Institute as a Centre for excellence with healthy working environment in regards to GMP accredited pharmacy certified clinical wing and state-of-art laboratories.

### MANDATE:

- Clinical Research
- Pharmacognosy Research
- Drug Standardization Research
- Pharmacological Research
- Health care services through Out–Patient Department (OPD) and 20 bedded In-Patient Department (IPD)
- Outreach Activity of AMHCP under SC Sub Plan
- Special facility for Panchakarma and Ksharasutra therapy
- Special Clinic for Geriatric Health Care

### Drug Standardization Research related Specific Mandate

- Development of safe, effective, affordable Ayurvedic drugs based on strengths of Ayurveda for National and global needs on scientific lines at par globally accepted norms.
- Development of standards for identification, collection and storage practices of raw materials.
- Development of quality control parameters and standardization of raw materials, extractives etc.
- Development of suitable pharmaceutical dosage forms and drug delivery systems.
- Development of standard operating procedures for various classical and investigational new drugs (IND).
- Development of quality, stability parameters for various classical and investigational new drugs (IND) to facilitate their registration as traditional medicine under THMPD of European Union.

### III. Technical Report:

#### III.1. Project work allotted/carried out during the reporting period 2023-24:

SN	Name of the Project	Project Summary	Remarks
<b>A. Clinical:</b>			
1.	Clinical Evaluation of Gokshuradi Guggulu and Nimbadi Churna in Vatarakta (GOUT)	Target achieved: 55	Completed
2.	Central Sector Scheme of Ayush Oushadhi Gunvatta Evum Utpadan Samvardhan Yojana (AOGUSY) under Ministry of AYUSH, Government of India.	Documented 96 misleading advertisements on Ayurvedic products and 19 Adverse Drug Reaction (ADR) till 31st March 2024. Organized 22 nos. of awareness programme including 05 nos. of seminar in different places.	Ongoing
3.	General health screening with special focus on Tuberculosis, Anemia, Haemoglobinopathies & Malnutrition and Ayurvedic Interventions for better health outcomes in students of Ekalavya Residential Model Schools (EMRS) functioning under M/o Tribal Affairs	Three EMRS schools at Jharkhand state named EMRS Bhognadih, EMRS Kathijoria and EMRS Tarsia has been allotted. The P.I. of the project along with other project staff has been visited those schools for conducting investigations / inspections programme on 11 <sup>th</sup> & 12 <sup>th</sup> March, 2024.	Ongoing
4.	Morbidity and Healthcare-seeking behaviour of the patients visiting the Ayurveda healthcare facilities of the DGAFMS Hospitals: A cross-sectional survey study	In this survey 1723 nos. of participants approached for willingness to participate in the survey in which 1685 nos. of participants successfully completed participation in the survey and 38 nos. of Non-responders till now.	Ongoing

SN	Name of the Project	Project Summary	Remarks
5.	Randomized Open Label Comparative Clinical Study on Management of Depression by Ayurveda and Yoga as Auxiliary Therapies in Combination with Conventional Treatment	-	Ongoing
<b>B. Outreach Programme:</b>			
1.	Ayurveda Mobile Health Care Programme Under Scheduled Castes Sub Plan a general survey	Total 3750 population target were provided for the project. Numbers of Tour target were 200. Total Number of 3750 SC population were covered during the survey. Total 200 tours were conducted.	Completed
2.	Effectiveness of Ayush Rasayana A & B on Quality of Life of elderly population- A cluster randomized study	<b>Primary objective:</b> 1) To assess effectiveness of Ayush Rasayana A & Bon quality of life of elderly population <b>Secondary objective:</b> 1) To assess the effectiveness of Ayush Rasayana A & Bon quality of sleep of elderly population 2) To assess the effectiveness of Ayush Rasayana A & Bon functionality of elderly population 3) To assess the tolerability of Ayush Rasayana A & B among elderly population for 3 months <b>Target achieved:</b> Number of Screening Participants: 59. Number of screening failure Participants: 19. Number of Successfully completed Participants: 38. Number of Withdrawal Cases from Study (if any): 02 participants from Group I.	Completed
<b>C. Drug Development:</b>			
1.	Pharmacognostical evaluation of medicinal plants cited in Ayurvedic formulary of India excluding the plants mentioned in Ayurvedic Pharmacopoeia of India- PART-I	Botanical standardization of 08 crude drugs has been completed and final report submitted to CCRAS, Hqrs.	Completed. Add on works ongoing
2.	Pharmacognostical evaluation of medicinal plants cited in Ayurvedic Formulary of India excluding the plants mentioned in Ayurvedic Pharmacopoeia of India-PART-II.	Microscopy of 08 crude drugs from 03 different geographical regions has been completed. Monograph preparation for 14 plants and project report compilation is under progress	Ongoing
3.	To establish the best procurement time for certain herbs by analyzing the seasonal variation in bioactive secondary metabolite with quantitative HPLC-Part-II.	Pharmacognostical study and HPLC analysis five crude drugs of six seasons completed	Ongoing
4.	Optimization of extraction process for	Macroscopic and microscopic studies:	Ongoing

SN	Name of the Project	Project Summary	Remarks
	the enrichment of extract with selected markers of some important Ayurvedic plants.	10 samples. Extraction optimization study of 01 plant for enriching the extract with marker compound has been completed.	
5.	Anthology of Pharmacognostical Research outcomes of CCRAS on Selected Medicinal Plants Used in the Ayurveda	Data of Twenty two (22) plants have been completed in the form of monographs entitled Quality Standard of selected Medicinal Plants, Volume-I, and publication is under process. Data of remaining plants are under revision.	Ongoing
6.	Development of quality standards of selected Extra-pharmacopeial (Anukta Dravyas) drugs used in local health traditions collected from different regions of India.	Botanical and phytochemical profiles of two (02) extrapharmacopoeial medicinal plants.	Ongoing
7.	Digitalization and indexing of herbarium sheets at CARI Kolkata collected from 1970-2000	Sorting, Cleaning, digitalization and indexing of the herbarium sheets done.	Ongoing
8.	Comparative Pharmacognostical and Phytochemical Standardization of Commonly Adulterating Ayurvedic Drugs and Their Adulterants	Purchase of semiautomatic HPTLC instrument and seven marker compounds done. Morphological and Powder microscopy of one crude drug done.	Ongoing
9.	Evaluation of the Heavy metal contents in market samples of plant raw drug used in Ayurveda.	Technical report compilation is going on.	ongoing
10.	Authentication of selected crude drugs through pharmacognostical evaluation, collected from various markets of India	Preparation of additional points in discussion part and compilation of high quality image data for monograph publication of 241 market crude drugs has been completed and sent to CCRAS, Hq. as per instruction.	Add on Works of completed IMR projects
11.	“Digitized Retrieval Application for Versatile Yardstick of Ayush-Substance (DRAVYA)”	New project has been sanctioned in Collaboration with CCRAS HQ, New Delhi.	ongoing
12.	“Development of quality standards for useful parts of Selected Medicinal Plants of Ayurveda”	Newly sanctioned project. Literature review of selected plants under the project has been started.	ongoing
13.	Pharmacognostical and Chemical Profiling of selected Indian Medicinal Flowers. (CO-I)	Development of fingerprint with selected extract of the flowers using different combination of solvents has been tried for maximum resolution of chemical components. Done for 36 flowers.	Ongoing
14.	“Development and Digitalization of Authentic Ayurvedic Raw Drug and Herbarium for the Medicinal Plants Appearing in Ayurvedic Formularies of India in Mandatory Drug Testing Laboratories of CCRAS.” (Co-I)	Three plant parts were supplied to CSMCARI, Chennai along with passport data, GPS details, habit photographs and inflorescence photo.	Ongoing
15.	Evaluation of Kanchanar guggulu and Varunadi Kashaya against letrozole induced polycystic ovarian syndrome associate conditions in female wistar rats	Submitted the technical report.	Completed

SN	Name of the Project	Project Summary	Remarks
16.	Evaluation of Cytotoxicity, Pharmacokinetics, Anti-Cancer Activity, Detailed Molecular Mechanisms of Bhallatakadi Modaka in In Vitro (2D and 3D Culture) and in vivo Tumor Xenograft Models(In collaboration with CSIR-IICB, Kolkata)	Submitted the technical report	Completed
17.	Evaluation of anti-cancerous potential, in-silico pharmacological analysis and molecular mechanism of Kanchanar guggulu in ovarian cancer $\mu$ Tumor spheroids, and in in-vivo models (In collaboration with CSIR-IICB, Kolkata)	Method validation of qRT- PCR was executed. Method validation of qRT - PCR has been finalized for a type of sample. Samples were run and observations were made	Ongoing
18.	Evaluation of Neuroprotective potential of Brahmi Ghrita, Panchgavya Ghrita and Ayush 56 in epilepsy model, its functional significance and mechanism (In collaboration with CSIR-IICB, Kolkata)	MOU has been signed with CSIR IICB and amount has been transferred.	Ongoing
19.	Chemopreventive Effects of Opuntia elatior Fruits Against Chemotherapy-Induced Toxicity in Ovarian Cancer Pre-Clinical Models(In collaboration with CSIR-IICB, Kolkata)	MOU has been signed with CSIR IICB and amount has been transferred.	Ongoing
20.	Evaluation of anti-bacterial, anti-oxidant and immuno-modulatory properties of selected Ayurvedic formulations.	Catalase assay and FRAP assay has been standardized. Antibacterial activity of different extracts of Chitrakadi vati on different bacterial strains started.	Ongoing
21.	Preclinical Evaluation and the Molecular Mechanism of Ayush-64 against Non-Alcoholic Fatty Liver Disease (NAFLD) and Non-Alcoholic Steatohepatitis (NASH) in murine mode. (In collaboration with NIPER, Kolkata)	MoU signed on 20.03.2024. Project in progress	Ongoing
22.	Evaluation of the inhibition potential of Ayurvedic drugs against cytochrome P450: Implications for drug-drug Interaction.(In collaboration with NIPER, Kolkata)	MoU signed on 05.01.2024. Drugs for study received and preparation of aqueous and hydroalcoholic extracts for <i>in vitro</i> study under progress. The pilot study for method standardization, method validation and pharmacokinetics in animals under progress.	Ongoing
23.	Deciphering pharmacodynamics of Ayurvedic formulations (AYUSH Manas, Amrit Bhallataka Ghrita and Jyotishmati Taila) used in the Treatment of Neurodegenerative Diseases by Integrating Reverse Pharmacological Approaches. (In collaboration with NIPER, Guwahati)	<ul style="list-style-type: none"> <li>• Physicochemical and phytochemical characterization of Jyotishmati Taila and AYUSH Manas formulations completed.</li> <li>• <i>In vitro</i> cell culture neuroprotective assays with treatment of study drugs are under progress</li> <li>• <i>In silico</i> experiments under progress.</li> <li>• <i>In vivo</i> neuroprotective (Parkinson's diseases) experiments with treatment of Jyotishmati Taila, Amrit Bhallataka Ghrita, and AYUSH Manas</li> </ul>	Ongoing



SN	Name of the Project	Project Summary	Remarks
		<p>formulations is completed.</p> <ul style="list-style-type: none"> <li>● Combinational approach of Jyotishmati Taila and Ayush Manas with existing therapeutic drug in MPTP induced Parkinson's disease is completed.</li> <li>● Effect of Jyotishmati Taila (<i>Celastrus paniculatus</i>; CP) formulation in Scopolamine induced Amnesia disease.</li> </ul>	
24.	<p>Mechanistic investigations on the efficacy and mode of action of Ashwagandha and Yograj Guggulu, using a hybrid Proteomics-Cheminformatics-Network medicine approach for the treatment of Osteoarthritis. (In collaboration with IIT, Guwahati)</p>	<ul style="list-style-type: none"> <li>● Molecular Profiling: Identification of AI constituents (metabolites) (Method Optimization) completed.</li> <li>● Target Identification: Mapping of the protein-protein interaction networks completed.</li> <li>● Identification of individual metabolites (<i>In vivo</i> study) completed.</li> <li>● <i>Ashwagandha</i> and <i>Yogaraj Guggulu</i> was administered daily for 28 days to MIA induced osteoarthritis rats is completed on 30.08.2023. The biochemical analysis of serum samples completed.</li> <li>● <i>In vivo</i> image analysis of rat knee samples after sacrifice is completed and its data analysis completed.</li> <li>● Histopathology analysis of rat knee samples after sacrifice is in progress. The samples analysis for proteomics and metabolomics is completed. Its data analysis is under progress.</li> </ul>	Ongoing
25.	<p>Anticancer potential and molecular mechanism of Rasa Sindhoor on Ovarian cancer cells (In collaboration with CSIR-IICB, Kolkata)</p>	<p>Completed the following studies:-</p> <ul style="list-style-type: none"> <li>● Cytotoxicity study.</li> <li>● The effect on mitochondrial membrane potential in OVACR-3 using confocal microscopy.</li> <li>● Live-dead staining of on OVACR-3</li> <li>● ROS inducing potential on ovarian cancer cell lines OVCAR-3 by using DCFH-DA dye.</li> <li>● Apoptosis inducing potential on 2008 and PEO1 cells by DAPI staining.</li> <li>● DNA damage inducing potential in 2008 cell lines.</li> <li>● Optimized the establishment of ovarian tumor xenograft in nude mice by injecting OVCAR-3 cells.</li> <li>● Studied the effect of Rasa sindhoor on mitochondrial membrane potential in PEO4 ovarian cancer cells.</li> </ul> <p><i>Histopathology study on tumor tissue is in progress.</i></p>	Ongoing

SN	Name of the Project	Project Summary	Remarks
26.	Toxicity Profile of Rasamanikya Rasa in Experimental Animals (In collaboration with CSIR-IITR, Lucknow)	Completed the following studies: - <ul style="list-style-type: none"> <li>• Acute oral toxicity study of Rasamanikya rasa in rats and mice.</li> <li>• In vitro mammalian cell micronucleus test.</li> <li>• In vitro mammalian chromosomal aberration test.</li> <li>• Sub-acute 28 days repeated dose toxicity study in rats. <i>180 days repeated dose oral toxicity study of rasamanikya rasa in wistar rat is under progress</i></li> </ul>	Ongoing
27.	Evaluation of coded drug Ayush <i>Rasayana B</i> for treatment of high-altitude sickness using multi-dimensional drug discovery approach. (In collaboration with IIT(BHU), Varanasi)	Ongoing	Ongoing
28.	Evaluation of selected Ayurvedic plants and formulations for their anti-diabetic activity using <i>in-silico</i> screening and its <i>in-vitro</i> validation.	Ongoing	Ongoing
29.	Digitized retrieval application for versatile yardstick of Ayush substances (DRAVYA)	Ongoing	Ongoing
30.	Aqueous and hydroalcoholic extraction of selected Anukta Dravya plants and evaluation of their therapeutic efficacy for various diseases. (In collaboration with Sambalpur University, Orissa)	Ongoing	Ongoing
31.	Evaluation of effect of AYUSH M3 and Prabhakar vati on cardiovascular parameters (In collaboration with CDRI, Lucknow)	Ongoing	Ongoing
32.	Anti-hyperuricemic and anti-gouty arthritis activities of Amritadi guggulu on monosodium urate crystal induced in Wistar rats.	Sanctioned however budget not yet released.	Sanctioned however budget not yet released.
33.	Evaluation of acute, sub-acute (28 days) and chronic (180 days) repeated dose oral toxicity study of AYUSH-56 in experimental animals	Sanctioned however budget not yet released.	Sanctioned however budget not yet released.
34.	Evaluation of acute dermal toxicity, 90 days repeated dose dermal toxicity, analgesic and anti-inflammatory activity of AYUSH MML Oil in Wistar rats	Sanctioned however budget not yet released.	Sanctioned however budget not yet released.
35.	Development of <i>Opuntia elatior</i> (fruit) based food recipe (Product development) and its nutritional, toxicity, efficacy and	Ongoing	Ongoing

SN	Name of the Project	Project Summary	Remarks
	bioavailability studies. (In collaboration with NIN, Hyderabad)		
36.	Evaluation of Ayurvedic Formulation against Rat Model of Alzheimer's Disease.	Completed	Completed
37.	Evaluation of Anti-diabetic and Hepatoprotective Activity of Coded Formulation AYUSH-64 in Experimental Animal Models.	Project completed and Final project report under preparation	Completed
38.	Development of Quality standards and SOP for formulation AYUSH KVM Syrup	<ul style="list-style-type: none"> <li>• Botanical and chemical standardization along with safety parameters of Batch I &amp; II of AYUSH KVM Syrup is completed.</li> <li>• Botanical standardization and microbial testing of raw drugs of Batch III of AYUSH KVM syrup is completed.</li> <li>• HPTLC finger printing profiling of Batch II of AYUSH KVM Syrup along with raw drugs and respective marker is completed.</li> <li>• Assay of bioactive marker compounds present in raw drugs as well as in the formulation of Batch I through HPTLC/HPLC is ongoing.</li> <li>• Physicochemical parameters of raw drugs of 3<sup>rd</sup> batch of AYUSH KVM Syrup is completed and analysis of safety parameters are ongoing process.</li> </ul>	Ongoing
39.	Isolation of Phytochemicals from selected Ayurvedic medicinal plants	<p>i. Column chromatography of the methanolic fraction of the <i>T. cordifolia</i> has afforded four phytochemicals in the reporting period. One of which is low melting solid.</p> <p>ii. Column chromatography of the methanolic fraction of the <i>B. diffusa</i> has afforded two phytochemicals in the reporting period.</p>	Ongoing
40.	Rationalization of hydro-alcoholic extractive protocols for selected plant roots/rhizomes of	<p>i. Determination of the gross extractive values of Punarnava (<i>Boerhavia diffusa</i> L.) root, Shatavari (<i>Asparagus racemosus</i>) root, Haridra (<i>Curcuma longa</i> L.) rhizome and Katuka (<i>Picrorhiza Kurroa</i> Royle ex Benth.) rhizome in variable hydro-alcoholic ratio have been completed using cold extraction and hot extraction (soxhlet) methods.</p> <p>ii. Estimation of the secondary metabolites of these plants in variable hydro-alcoholic ratio is under progress.</p> <p>iii. HPTLC profiling of these plants in variable hydro-alcoholic ratio is under</p>	Ongoing

SN	Name of the Project	Project Summary	Remarks
		progress. iv. A definite outcome has obtained from the project but the value addition is continuous process which is tangible in next few months.	
41.	Ayurvedic importance for strategic drug development Isolation of Marker/PRS Compounds of selected Medicinal Plants	<ul style="list-style-type: none"> <li>Completed the cold and hot extraction process of Salaparni (root) by using solvent with increasing polarity of the solvent system - Hexane, chloroform, Ethylacetate, &amp; Methanol and based upon it ESI-LSMS was performed for each crude extract for getting idea about the phytoconstituents present in.</li> <li>Hot extraction process of Prishnaparni (Root) by using solvent with increasing polarity like hexane, chloroform, ethyl acetate and methanol is going for getting idea about the phytoconstituents present in.</li> <li>One phytocompound was isolated from methanolic extract of Shalaparni Root. Identification of that compound is under process.</li> </ul>	Ongoing
42.	AYUSH-HR	Project completed and final report submitted to HQ	Completed
43.	Panchavalka Kwatha Churna	Project completed and final report submitted to HQ	Completed
44.	Bharngayadhi Kwatha Churna	Project completed and final report submitted to HQ	Completed
45.	Nimbadi Churna	Project completed and final report submitted to HQ	Completed
46.	Udumbaradi Taila	Project completed and final report submitted to HQ	Completed
47.	Development of SOP s and quality standards for the formulation AYUSH 56.	Ongoing	Ongoing
48.	Development of quality standards and standard operating procedure for the formulation Stanyashodhana Kashaya Ghanavati.	Ongoing	Ongoing
49.	Process Validation and Pharmaceutical Standardization and Estimation of Shelf life Study of Vacalasanadi Taila, Somaraji Taila, Hingutriguna Taila and Yastimadhu Ghrit.	Ongoing	Ongoing
50.	Process validation and pharmaceutical standardization and estimation of shelf life study of Abhijit Taila ,Madhukadi Taila and Vyghri Taila	Ongoing	Ongoing
51.	Development of SOP's and quality standards for Ayurvedic formulation <i>Gandhaka Rasayana</i> .	Ongoing	Ongoing

**III.2. Publication of Research papers/articles (publication in reputed National/ International journals) by Officers of Institute during the reporting period 2023-24:**

S. N.	Name of the Corresponding author	Type	Citation of the Research Publication (Research Article)	Discipline	Date of publication (Month & Year)	Indexing agency	DOI, ISSN	Name of Institute /Centre
1	Dr. B. K. Sarkar	Research Article	A. Helen Sonia, Pawar Kavita Yogesh, Sonali V Uppalwar, Romila Antony, B. Sathya, Payal Rani, Rajiv Bharti, Biresh Kumar Sarkar, & Dhammshila L Devhare. (2023). Evaluation Of Azadirachta Indica Leaves Extract For Anti-Allergic Potential. Journal of Population Therapeutics and Clinical Pharmacology, 30(1), 401–408.	Drug Standardization	2023	Scopus, UGC care	01 doi.org /10.53 555/jpt cp.v30i 1.2437	CARI, Kolkata
2	Dr. B. K. Sarkar	Research Article	Vinod M. Thakare, Shraddha A. Umare , Shraddha P. Vaishnav, Archana Barhate, Biresh Kumar Sarkar , Lalchand D. Devhare , Shruti M. Thakre (2023) Separation And Purification Of Carboxymethyl Cellulose From Spinacia Oleracea For Use In Pharmaceutical Dosage Form, European Chemical Bulletin, Eur. Chem. Bull., 12(Special Issue 5), 4062 – 4080	Drug Standardization	2023	UGC care, Scopus	DOI: 10.480 47/ecb/ 2023.1 2.si5a. 0306	CARI, Kolkata
3	Dr. B. K. Sarkar	Research Paper	Konda V V S Krishna, Pushpendra Kumar Jain, Lalchand D Devhare, Rahul Kumar Sharma, Om M. Bagade, Allenki Venkatesham, Biresh Kumar Sarkar, Pawar Kavita Yogesh(2023). A Study On Antidiabetic Potential Of Dried Fruits Extract Of Eucalyptus Globulus In Experimental Animals.Journal Of Biomedical Engineering ManuscriptI, 2023;Vol. 40 No. 3	Drug Standardization	15-08-2023	UGC care	ISSN: 1001- 5515, Vol: 40 No. 3 (2023)	CARI, Kolkata
4	Dr. B. K. Sarkar	Research Article	Sanjay Kumar, Ganesh Balappa Gajeli, Rekha Jangra, Laxmi Biban, Sonali Uppalwar, Vamseekrishna Gorijavolu, Biresh Kumar Sarkar , P.Balaji (2023) Exploring the potent Antidiarrheal Properties of Capparis Zeylanica Leaf Extracts, published in European Chemical Bulletin, Scopus Indexed and UGC approved. Vol.12, Special Issue-8	Drug Standardization	2023 (Special issue 8)	UGC care, Scopus	ISSN: 2063- 5346, Vol:12, Special Issue-8 (2023)	CARI, Kolkata
5	Dr. Shiddam allayya Nagayya	Research Article	Pulicherla Y, Meher SK, Nagayya S, Bora D, Cheemanapalli S, Bhardwaj Y, Tripathi AK, Venkateshwarlu B, Rath C, Mangal AK, Narayanam S. Floristic exploration of East Sikkim district of Sikkim. Journal of Drug Research in Ayurvedic Sciences. 2023 Apr 1;8(2):159-72.	Medicinal Plant Research	31-04-2023	UGC care	DOI: 10.410 3/jdras. jdras_1 61_22 ISSN: 2279- 0357	CCRAS
6	Dr. Ch.	Research	Narasimhaji CV, Mangal AK, Rekha	Medicinal	31-04-	UGC	DOI:	CSMC

S. N.	Name of the Corresponding author	Type	Citation of the Research Publication (Research Article)	Discipline	Date of publication (Month & Year)	Indexing agency	DOI, ISSN	Name of Institute /Centre
	Venkata Narasimhaji,	Research Article	P, Ilavarasan R, Srikanth N. Seasonal assessment of asiaticoside content in <i>Centella asiatica</i> (L.) Urb. by HPLC and pharmacognostical studies to establish its best procurement time. <i>Journal of Drug Research in Ayurvedic Sciences</i> . 2023 Apr 1;8(2):134-42.	Plant Research	2023	Care	10.4103/jdras. jdras_84_21  ISSN: 2279-0357	ARI, Chennai
7	Deepak Kumar	Research Article	Kumar D, Pal S. NMR Relaxation and Diffusion studies to probe the motional dynamics of Risperidone within PLGA microsphere. <i>Magnetic Resonance Letters</i> . 2023; 3(2):197-205	Fundamental Research	May, 2023	Scopus, PubMed, UGC Care, Web of Science	<a href="https://doi.org/10.1016/j.mrl.2023.03.005">doi.org/10.1016/j.mrl.2023.03.005</a>	CARI, Kolkata
8	Arun.M. Gurav	Research Article	Kumar A, Jangid DP, Marimuthu S, Gurav AM, Srikanth N, Mangal AK, Venkateshwarlu B, Shiddamallayya N. Identification and authentication of <i>Agnimantha</i> plant species used in Ayurveda on the basis of anatomical and molecular phylogenetic analysis. <i>Plant Science Today</i> . 2023 Oct 1;10(4):26-38.	Medicinal Plant Research	October 2023	UGC Care	DOI: 10.14719/pst ISSN 2348-1900	
9	Baral B	Research article	Baral B, Saini V, Tandon A, Singh S, Rele S, Dixit AK, et al. SARS-CoV-2 envelope protein induces necroptosis and mediates inflammatory response in lung and colon cells through receptor interacting protein kinase 1. <i>Apoptosis</i> . 2023 Dec;28(11-12):1596-617.	Biochemistry and Molecular Biology	December, 2023		<a href="https://doi.org/10.1007/s10495-023-01883-9">https://doi.org/10.1007/s10495-023-01883-9</a>	CARI, Kolkata
10	Dr. Rajesh Bolleddu	Research Article	Bolleddu R, Venkatesh S, Narasimhaji CV. Pharmacognostical and phytochemical studies of <i>Atibala</i> ( <i>Abutilon indicum</i> [Linn.] sweet) fruit. <i>AYU</i> (An international quarterly journal of research in Ayurveda). 2021 Jul 1;42(3):138-42.	Medicinal Plant Research	12-Apr-2023	PubMed Central	DOI:10.4103/ayu.AYU_264_20 ISSN: 0974-8520	CARI Kolkata
11	Dr. Rajesh Bolleddu	Research Article	Nazia Z, Sama V, Rajesh B, VV RB. Pharmacognostical and phytochemical investigation of <i>Olar scandens</i> Roxb.( <i>Dheniaani</i> ) stem, stem bark, root and leaf. <i>ARYAVAIDYAN</i> . 2023 July;36(1):29-42.	Medicinal Plant Research	July - 2023	--	--	CARI Kolkata
12	Dr. VGM Naidu	Research article	Panda SR, Chaudhari VB, Ahmed S, Kwatra M, Jala A, Ponneganti S, Pawar SD, Borkar RM, Sharma P, Naidu VG. Ambient particulate matter (PM <sub>2.5</sub> ) exposure	Pharmacology and safety studies	August 2023	Elsevier BIOB	10.1016/j.etap.2023.104183.	

S. N.	Name of the Corresponding author	Type	Citation of the Research Publication (Research Article)	Discipline	Date of publication (Month & Year)	Indexing agency	DOI, ISSN	Name of Institute /Centre
			contributes to neurodegeneration through the microbiome-gut-brain axis: Therapeutic role of melatonin. Environmental Toxicology and Pharmacology. 2023 Aug 1;101:104183.			ASE Scopus		
13	Debajyoti Das	Research article	Debajyoti Das, Dipsundar Sahu, Saroj Kumar Debnath, Ranjita Ekka, Tushar Kanti Mandal, G Babu. A review on Millets (Kshudra Dhanya): Nutritional and health benefits in lifestyle diseases. J of Ayurveda and Hol Med (JAHM). 2023; 11(8):44-57	Clinical research	August 2023	Others	ISSN:2321-1563	CARI, Kolkata
14	Debajyoti Das	Research article	Das D, Bolleddu R, Das M, Sahu D, Mangal AK, Babu G, et al. Pharmacognostical and phytochemical studies of <i>Crotalaria retusa</i> L. (Shanapuspi) roots. J Drug Res Ayurvedic Sci 2023;8:370-6.	Medicinal Plant Research	October-December 2023	UGC care	DOI: 10.4103/jdras.jdras_31_23 ISSN:279-0357	CARI, Kolkata
15	Dr. Dipsundar Sahu	Clinical Research	Dipsundar Sahu <sup>1</sup> , Saroj K. Debnath <sup>2</sup> , Debajyoti Das <sup>2</sup> , Laxmidhar Barik <sup>4</sup> , Ranjita Ekka <sup>5</sup> , Suparna Saha <sup>6</sup> , Tushar K. Madal <sup>7</sup> , G. Babu <sup>8</sup> . A Clinical Case Study on Janu Sandhivata (Knee Arthritis) to evaluate the effect of Combined Panchakarma procedure and Internal Traditional Ayurvedic Formulations. Research Journal of Pharmacy and Technology. 2023 DEC; 16 (12); 5901-5905.	Clinical Research	December, 2023	Others	0974-3618 (Print) 0974-360X (online)	CARI, Kolkata
16	Dr. Dipsundar Sahu	Research Article	Dipsundar Sahu, Saroj K. Debnath, Debajyoti Das, Laxmidhar Barik, Ranjita Ekka, Suparna Saha, Tushar K. Madal, G. Babu. A Clinical Case Study on Janu Sandhivata (Knee Arthritis) to evaluate the effect of Combined Panchakarma procedure and Internal Traditional Ayurvedic Formulations. Research Journal of Pharmacy and Technology. 2023; 16(12):5901-5. doi 10.52711/0974-360X.2023.00956	Drug Standardization	2023	Scopus	Volume -16	CARI, Kolkata
17	Dr. Shakti Bhushan	Research Article	Dipsundar Sahu, Sreya Dutta, Shakti Bhushan, Manosi Das, Susmita Mondal, G. Babu. Phyto-Morphological and Phytochemical Insights: A Comprehensive Study of <i>Hygrophila triflora</i> (Roxb.) Fosc. and Sachet Leaves. Research Journal of Pharmacy and Technology. 2024;	Drug Standardization	March, 2024	Scopus	0974-3618 (Print) 0974-360X (Online)	CARI, Kolkata

S. N.	Name of the Corresponding author	Type	Citation of the Research Publication (Research Article)	Discipline	Date of publication (Month & Year)	Indexing agency	DOI, ISSN	Name of Institute /Centre
			17(3):1159-5. doi: 10.52711/0974-360X.2024.00180					
18	Dr. Shakti Bhushan	Review Paper	Dr. Amiya Kumar Sahoo, Oluwadare Joshua OYEBODE, Kishor Kumar, Dr Shakti Bhushan, Manjul Singla, Amanpreet Kaur, A Kakoli Rao.(2023) Challenges, impact and integration of machine learning and blockchain technology in the smart healthcare development European Chemical Bulletin ISSN 2063-5346doi: <a href="https://doi.org/10.48047/ecb/2023.12.si7.1252023.16/06/2023">10.48047/ecb/2023.12.si7.1252023.16/06/2023</a>	Drug Standardization	Year-2023	Scopus	ISSN 2063-5346 doi: <a href="https://doi.org/10.48047/ecb/2023.12.si7.1252023.16/06/2023">10.48047/ecb/2023.12.si7.1252023.16/06/2023</a>	CARI, Kolkata
19	Dr. Shakti Bhushan	Research Article	M. Kushal, S. Yadav, T. Yadav, A.K. Vishwkarma, S. Bhushan, R. Kumar, R.V. Yadav, Pankaj K. Tripathi,(2023) In silico investigation on molecular modeling of tyramine and its deprotonated form, Computational and Theoretical Chemistry, Volume 1226, 2023, 114190, ISSN 2210-271X, <a href="https://doi.org/10.1016/j.comptc.2023.114190">https://doi.org/10.1016/j.comptc.2023.114190</a>	Drug Standardization	Year-2023	Scopus	<a href="https://doi.org/10.1016/j.comptc.2023.114190">doi.org/10.1016/j.comptc.2023.114190</a>	CARI, Kolkata
20	Dr. Saroj Kumar Debnath	Clinical Research	Saroj Kumar Debnath1*, Dipsundar Sahu1, Debajyoti Das1, Ranjita Ekka1, Tushar Kanti Mandal2, G Babu3. Acceptance of millets in aspects of nutritional profiles, health and environmental benefits. International Journal of Ayurveda and Pharma Research. 2023 Oct; 11 (9); 71-75	Clinical Research	October, 2023	Others	ISSN: 2322 - 0902 (P) ISSN: 2322 - 0910 (O)	CARI, Kolkata
21	Dilip Kumar Maiti	Research Article	Das A, Debnath S, Hota P, Das T, Maiti DK. K <sub>2</sub> CO <sub>3</sub> -Catalyzed Dual C-C Coupled Cyclization to 3-Amino-4-benzophenyls and In Situ I <sub>2</sub> - Catalysed C-N Bond Forming Annulation: A Metal-Free Synthesis of Arylacridones. The Journal of Organic Chemistry. 2023; 88(18):12986–12996	Fundamental Research	September, 2023	Scopus, Pubmed, UGC care, Web of Sci.	<a href="https://doi.org/10.1021/acs.joc.3c01010">doi.org/10.1021/acs.joc.3c01010</a>	CARI, Kolkata
22	Dilip Kumar Maiti	Research Article	Das A, Ajarul Sk, Debnath S, Hota P, Maiti DK. Bronsted Acid-Catalysed [5+1] and [4+1] Annulation of Cyclic Anhydrides with o-Alkynylanilines to Construct Fused-N-Heterocycles. The Journal of Organic Chemistry. 2023; 88(21):15073–15084	Fundamental Research	October, 2023	Scopus, Pubmed, UGC care, Web of Sci.	<a href="https://doi.org/10.1021/acs.joc.3c01525">doi.org/10.1021/acs.joc.3c01525</a>	CARI, Kolkata
23	Dr. Sarada Ota	Clinical Research	Renu Singh1, Lalita Sharma1, Sarada Ota2, Bharti Gupta3, Richa Singhal4, Rakesh Rana5, Saketh Ram Thrigulla6, Vinod Kumar	Clinical Research	November, 2023	Others	ISSN: 0974-8520; Online ISSN:	CCRAS Hqrs. New Delhi



S. N.	Name of the Corresponding author	Type	Citation of the Research Publication (Research Article)	Discipline	Date of publication (Month & Year)	Indexing agency	DOI, ISSN	Name of Institute /Centre
			<p>Lavaniya<sup>1</sup>, Deepa Makhija<sup>2</sup>, Sakshi Sharma<sup>7</sup>, Pawan Kumar Godatwar<sup>8</sup>, Meera K. Bhojani<sup>9</sup>, Santhosh S. R. Nair<sup>10</sup>, Vaishali Mali<sup>11</sup>, Arjun Singh Baghel<sup>12</sup>, Shalinee Kumari Mishra<sup>13</sup>, Bhuvnesh Sharma<sup>14</sup>, Monika<sup>15</sup>, Banamali Das<sup>16</sup>, Sudhanshu Kumar Meher<sup>17</sup>, Manohar S. Gundeti<sup>18</sup>, Sneha Marlewar<sup>18</sup>, Avvaru Jaivenkata Sai Prasad<sup>19</sup>, Sujata Dhoke<sup>19</sup>, Rohit Kumar Ravte<sup>20</sup>, Dipsundar Sahu<sup>21</sup>, Shivakumar S. Harti<sup>22</sup>, Mahesh Vyas<sup>23</sup>, Narayanam Srikanth<sup>24</sup>, Adarsh Kumar<sup>25</sup>, Kartar Singh Dhiman<sup>26</sup>.</p> <p>Development of a standardized assessment scale for assessing Prakriti (psychosomatic constitution).  AYU (An International Quarterly Journal of Research in Ayurveda).  2023 NOV; 43 (4); 109-129.</p>				0976-9382	
24	Manosi Das	Research Article	<p>Das M, Debnath S, Bolleddu R, Dey RK, Mondal S, Banerjee A, et al. Phyto-Pharmacognostical Evaluation with HPTLC finger printing profiling, UV-Spectral analysis and antioxidant activity on <i>Crotalaria retusa</i> L. Leaf Extracts. <i>Journal of Emerging Technologies and Innovative Research</i>. 2023; 10(12):a164-a173.</p>	Drug Standardization	December, 2023	UGC care	DOI: <a href="https://doi.org/10.6084/m9.jtir.JETIR23TIR2312025">10.6084/m9.jtir.JETIR23TIR2312025</a>	CARI, Kolkata
25	Giriraj Tailor	Research Article	<p>Giriraj Tailor, Muhammad Tukur Mukhtar, Ahmad Nasir Labaran, Alhassan Muhd Garba, Ya'u Datti, Saurabh Singh, Deepak Kumar, Jyoti Chaudhary; Green synthesis of iron nanoparticles using <i>Mangifera indica</i> leaves extract: phytochemical analysis and characterizations, for environmental remediation of pollution. <i>Nanotechnol. Environ. Eng.</i> 9, 77–84 (2024).</p>	Fundamental	December 2023	Scopus, Pubmed, Web of Science	10.1007/s41204-023-00353-6	
26	Dr. Jyoti Dahiya	Research Article	<p>Dahiya J, Bolleddu R, Dutta S, Kumar D, et al. Systematic Extraction Studies for High Recovery of Catechin from <i>Saraca asoca</i> (Roxb.) Willd. Seeds Following Analytical Quality by Design (AQbD) <i>JETIR</i> 2023; 10 (12): b197-b209.</p>	Medicinal Plant Research	05-12-2023	UGC care	ISSN: 23495162	CARI, Kolkata

S. N.	Name of the Corresponding author	Type	Citation of the Research Publication (Research Article)	Discipline	Date of publication (Month & Year)	Indexing agency	DOI, ISSN	Name of Institute /Centre
27	Dr. Jyoti Dahiya,	Research Article	Dahiya J, Kumar D, Adhikari S, Ghosh D, Bolleddu R, Dutta S, Mall S, Hazra K, Mangal AK, Babu G. Evaluation and documentation of the botanical, chemical, and antioxidant changes during the sprouting of Bajra seeds. Journal of Drug Research in Ayurvedic Sciences. 2023 Oct 1;8(4):377-88.	Medicinal Plant Research	20-12-2023	UGC care	DOI: 10.4103 ISSN: 2279-0357	CARI, Kolkata
28	Dr. Rajesh Bolleddu	Research Article	Venkatesh S, Bolleddu R, Shivani Y, Alvala RK, Zareen N. Pharmacognostical, Phytochemical, In vitro Hypoglycemic Studies of Avartani ( <i>Helicteres isora</i> L.) Root and Fruit Extracts. Journal of Ayurveda. 2024 Jan 1;18(1):5-13.	Medicinal Plant Research	January, 2024	UGC care	DOI: 10.4103	CARI, Kolkata
29	Manosi Das	Research Article	Mondal S, Das M, Debnath S, Babu G. Rationalization of Hydroalcoholic Extract of <i>Acorus calamus</i> (Rz) in Respect of its Marker Compound Present in-Through Quantitative HPTLC study. International Journal of Research and Analytical Reviews. 2024; 11(1):304-309.	Drug Standardization	February, 2024	UGC care	E-ISSN 2348-1269, P-ISSN 2349-5138)	CARI, Kolkata
30	Dr. Sharad Pawar	Review article	Gayakwad S, Shirolkar A, Dixit A, Gaidhani S, Pawar S. Critical Appraisal of <i>Nothapodytes nimmoniana</i> (J. Graham) Mabb. Extraction Methods, Pharmacological Activities, and Future Prospects. Pharmacognosy Magazine. 2024 Mar 25:09731296241234113.	Pharmacology and safety studies	March, 2024	Clarivate Analytics: Science Citation Index	10.1177/09731296241234113	CARI, Kolkata
31	Dr. Amit Kumar Rai	Clinical Research	Dipsundar Sahu <sup>1</sup> , Taposi Borah <sup>2</sup> , Alok Srivastava <sup>3</sup> , Shruti Khanduri <sup>4</sup> , Amit Kumar Rai <sup>4</sup> , Sudhanshu K. Meher <sup>5</sup> , Dinesh Baruah <sup>2</sup> , Krishna K. Singh <sup>6</sup> , Richa Singhal <sup>7</sup> , Rakesh Rana <sup>4</sup> , Bhagwan S. Sharma <sup>4</sup> , Sulochana Bhat <sup>8</sup> , Bharti <sup>9</sup> , Narayanam Srikanth <sup>4</sup> , Madan M. Padhi <sup>10</sup> , Kartar S. Dhiman <sup>11</sup> . Vatari Guggulu, Hingvashtaka Churna, and Brihat Saindhavadya Taila in the management of rheumatoid arthritis: An open-label, prospective, single-arm multi-center study. Journal of Research in Ayurvedic Sciences. 2024 MAR; 8 (1); 12-19	Clinical Research	11-Mar-2024	Others	2456-5601, online-2581-9895	CARI, Kolkata

S. N.	Name of the Corresponding author	Type	Citation of the Research Publication (Research Article)	Discipline	Date of publication (Month & Year)	Indexing agency	DOI, ISSN	Name of Institute /Centre
32	Kalyan Hazra	Research Article	Hazra K, Kumar D, Debnath S, Mondal S, Batule M, Dutta S, et al. Dynamicity and extractability of hydro-alcoholic solvents for <i>Tinospora cordifolia</i> stem: an investigation for target-oriented traditional drug discovery based on biologically active phytochemicals, <i>Vegetose</i> . 2024.	Drug Standardization	March, 2024	Scopus, Pubmed, UGC care, Web of Sci.	doi.org/10.1007/s42535-024-00835-1	CARI, Kolkata
33	Dr. Shakti Bhushan	Clinical Research	Dipsundar Sahu <sup>1</sup> , Sreya Dutta <sup>2</sup> , Shakti Bhushan <sup>3</sup> , Manosi Das <sup>4</sup> , Susmita Mondal <sup>5</sup> , G. Babu <sup>6</sup> . Phyto-Morphological and Phytochemical Insights: A Comprehensive Study of <i>Hygrophila triflora</i> (Roxb.) Fosc. and Sachet Leaves. <i>Research Journal of Pharmacy and Technology</i> . 2024 MAR; 17 (3); 1-7	Drug Standardization	March, 2024	SCOPUS	0974-3618 (Print) 0974-360X (online)	CARI, Kolkata
34	Dr. Anushri Urkude	Research article	Urkude AS, Acharya RN, Pawar SD, Patel BR, Alam Q. <i>In Silico</i> Evaluation of Bioactive Compounds from <i>Gokshura (Tribulus terrestris L.)</i> and <i>Punarnava (Boerhavia diffusa L.)</i> for their Nephroprotective Activity in Chronic Kidney Disease and Related Complications. <i>Toxicology International</i>	Pharmacology and safety studies	Accepted	Scopus, UGC	Online ISSN: 0976-5131 Print ISSN: 0971-6580	CARI, Kolkata
35	Dr. Sharad Pawar	Research article	Chavan P, Danane T, Sharbidre A, Pawar S, Jadhav A, Jagtap S. Diosgenin Mitigates Aluminum Chloride Mediated Developmental Toxicity in <i>Drosophila melanogaster</i> . <i>Toxicology International</i> .	Pharmacology and safety studies	Accepted	Scopus, UGC	Online ISSN: 0976-5131 Print ISSN: 0971-6580	CARI, Kolkata
36	Dr. Deepak Kumar	Review Article	Deepak Kumar, Kalyan Hazra, Peyyala Venkata Vara Prasad, Rajesh Bulleddu; Honey: An important nutrient and adjuvant for maintenance of health and management of diseases. <i>Journal of Ethnic Foods</i> 2024.	Drug Standardization	Accepted (March 2024)	Scopus, UGC, Pubmed, Web of Sci.	ISSN: 2352-619X	CARI, Kolkata

**Submission of Information for Book/Monograph published for the year 2023-24 (April, 2023 to March, 2024)**

S. N.	Corresponding author	Type of Publication	Citation of the Research Publication (Book Chapter/Papers in Seminar proceedings)	Discipline	(Month & Year)	ISBN	Name of Institute/Centre
1	Dr. B. K. Sarkar	Book Chapter	Dr.B.K. Sarkar (2023) phytopharmaceuticals and herbal drugs: Prospects and Safety Issues in the Delivery of Natural Products. pp-215-248. ISBN: 978-0-323-99125-4	Drug Standardization	2023	ISBN: 978-0-323-99125-4	CARI, KOLKATA
2	Dr. Suparna Saha	Book Chapter	Shakti Bhushan, Rashmi Gupta, Dr.Suparna Saha, Anand Kumar Chaudhary.(2023). Herbal	Drug Stand	2024	ISBN: 978-	CARI, KOLKATA

		r	Drugs In The Global Market: A Growing Trend Towards Natural Healthcare Solutions.IIP series Futuristic Trends in Herbal Medicines and Food Products ISBN: 978-93-5747-680-5	ardiza tion		93-5747-680-5.	A
3	Dr. Shakti Bhushan	Book Chapter	Shakti Bhushan,Rashmi Gupta,Suparna Saha,Anand Kumar Chaudhary(2023) Herbal Drugs In The Global Market: A Growing Trend Towards Natural Healthcare Solutions IIP series,Futuristic Trends in Herbal Medicines and Food Products ISBN: 978-93-5747-680-5	Drug Stand ardiza tion	2024	ISBN: 978-93-5747-680-5	CARI, KOLKAT A
4	Dr. Deepak Kumar	Book chapter	Kumar D, Debnath S, Hazra K, Dahiya J. Modern Analytical Techniques Used For The Identification Of Bioactive Molecules, Futuristic Trends in Herbal Medicines and Food Products, Iterative International Publishers (IIP), Vol. 3, 2023, ISBN: 978-93-5747-680-5	Drug Stand ardiza tion	2024	978-93-5747-680-5	CARI, Kolkata
5	Dr. M. Kalyankum araju	Book chapter	Molecular mechanism of bioactive compounds; Futuristic Trends in Herbal Medicines and Food Products, Iterative International Publishers (IIP), Vol. 3, 2023, ISBN: 978-93-5747-680-5	Drug Stand ardiza tion	2024	978-93-5747-680-5	CARI, Kolkata
6	Dr. Sudipto Debnath	Book chapter	Debnath S, Kumar D, Das M, Mondal S, Babu G. Extraction Methods Of Bioactive Compounds From The Plants. Futuristic Trends in Herbal Medicines and Food Products, Iterative International Publishers (IIP), Vol. 3, 2023, ISBN: 978-93-5747-680-5	Drug Stand ardiza tion	2024	978-93-5747-680-5	CARI, Kolkata
7	Dr. A. K. Dixit	Book Chapter	Nair PG, Nair PP, Dixit AK. The Importance and Scope of Medicinal Plants Suggested in Traditional Medicine in the Holistic Care of Occupational Lifestyle Disorders with Special Mention to Insulin Resistance Associated Clinical Syndromes. In: Dhara AK, Mandal SC, editors. Role of Herbal Medicines : Management of Lifestyle Diseases [Internet]. Singapore: Springer Nature Singapore; 2023. 13–32.	Biochemistr y and Molec ular Biolo gy	Febru ary 2024	<a href="https://doi.org/10.1007/978-981-99-7703-1_2">https://doi.org/10.1007/978-981-99-7703-1_2</a>	CARI, Kolkata
8	Dr. A. K. Dixit	Book Chapter in Elsevier	Natural Products from Selected Medicinal Plants as Potential Therapeutics in Alzheimer's Disease” in Book entitled "Studies in Natural Products Chemistry" (Bioactive Natural Products). (Elsevier) Parvathy G. Nair , Amit Kumar Dixit , Deepti Dixit, Dara Singh Rotwar, Mukesh Kumar Sharma	Biochemistr y and Molec ular Biolo gy	Accep ted		CARI, Kolkata
9	Anupam. K. Mangal(Editorial expert), Manosi Das, Rajesh Bolleddu and Sreya Dutta (one of the contributors )	Monograph	Srikanth N. (Chief Editor); <b>Anupam.K. Mangal</b> , Ravindra Singh, B. Venkateshwarlu and Shiddamallayya N. (Editors); Kamleshwar Singh, Asish K. Triupathi, Heena Jindal and Saveena Chauhan (Associate editors) Quality Standard of selected Medicinal Plants, Volume-I, CCRAS, Ministry of AYUSH, New Delhi, 2023: Vol. I	Medicinal Plant Research	2023	--	CARI, Kolkata
10	Dr. B. K. Sarkar,	Book	Dr. Lalchand D Devhare, Prof.vedanshu R. Malviya, Savita Shrikant Deokar,Dr. B.K. Sarkar,Mangala Nand Singh(2023)A TEXT BOOK OF NOVEL DRUG DELIVERY	Drug Stand ardiza tion	Octob er, 2023	ISBN: 978-93-5747-	CARI, Kolkata

			SYSTEM BACHELOR OF PHARMACY-FINAL YEAR (VII SEMESTER)			962-2	
11	Dr. B. K. Sarkar	Book Published	Dr. B. k. Sarkar(2023)A TEXT BOOK OF INDUSTRIAL PHARMACY-I	Drug Standardization	January, 2024	ISBN: 97893-5735-735-7	CARI, Kolkata
12	Anupam.K. Mangal (Editorial expert )	Monograph	Srikanth N.; A.M. Gurav, Soma N. Murthy (Investigator); <b>A.K. Mangal</b> , B. Venkateshwarlu, Shiddamallayya N., Chinmay Rath (Editorial expert); Kamleshwar Singh, Asish K. Triupathi, Heena Jindal, Rekha B. Nirawane (Technical Medicinal Plant Research support).., Agro-techniques of Selected Medicinal Plants: <i>Gokshura- Tribulus terrestris</i> L., CCRAS, Ministry of AYUSH, New Delhi, 2023: Vol. II.	Medicinal Plant Research	02-03-2024	--	CARI, Kolkata
13	Dr. B. K. Sarkar	Book	Dr V. RamaMohan Gupta, Dr.L.Matsyagiri,Ms Vadi Ranjan, Dr. C.S. Kandasamy, <b>Dr. Biresh Kumar Sarkar</b> ,(2023)A COMPREHENSIVE TEXT BOOK FOR HERBAL DRUG TECHNOLOGY	Drug Standardization	03.04.2024	ISBN: 978-93-6087-9242	CARI, Kolkata

**Submission of Information for Research outcomes presented in Seminar/ Workshop/ Conference for the year 2023-24 (April, 2023 to March, 2024)**

S. N.	Name of the Author (S)	Title of the paper presented	Name of the conference/Seminar/ Webinar/Workshop	Name of the organizer and venue	Date of the event	Name of the Institute / Centre
1.	Kalyan Hazra	Scientific Validation of Ayurvedic Principle and Practices through Modern Chemical Investigations.	International Hybrid Seminar on “AYUSH: Advancement & Scope in Bengal”	Independent Research Ethics Society (IRES)	24 <sup>th</sup> June 2023	CARI, Kolkata.
2	Dr. Debajyoti Das	Role of Millets in life style diseases	Preventions of Lifestyle Disorders through Ayurvedic Interventions by incorporating Millets	CARI, Kolkata. Venue: Anthropological Survey of India, Bidhannagar, Kolkata.	27.06.2023 & 28.06.2023	CARI, Kolkata.
3	Dr. Suparna Saha	Millets for Health: Nutritional Treasures for a Balanced Diet	Preventions of Lifestyle disorders through Ayurvedic Interventions by incorporating Millets	CARI, KOLKATA	27/06/2023 - 28/06/2023	CARI, KOLKATA
4	Dr. Shakti Bhushan	Powering Health Economics With Nutritional Wealth: A Comprehensive Review.(Awarded 2 <sup>nd</sup> Position for Oral	Preventions of Lifestyle disorders through Ayurvedic Interventions by incorporating	CARI, KOLKATA	27/06/2023 - 28/06/2023	CARI, KOLKATA

		Presentation)	Millets			
5	Dr, Susmita Roy	Effect of millets on gut microbia	National Seminar Preventions of Lifestyle disorders through Ayurvedic Interventions by incorporating Millets	CARI, KOLKATA	28 <sup>th</sup> June 2023	CARI, KOLKATA
6	Dr. Deepak Kumar	Physico-chemical, Functional and Anti-nutrients Characteristic of Millets.	National Seminar Preventions of Lifestyle disorders through Ayurvedic Interventions by incorporating Millets	CARI, KOLKATA	28 <sup>th</sup> June 2023	CARI, KOLKATA
7	Dr. G. Babu <sup>1</sup> , Dr. D.S. Sahu <sup>2</sup> ,	Role of AYUSH 82 to combat metabolic disorders and associated pathological complications”.	“Role of Medicinal plants to combat metabolic disorders and associated pathological complications”	School of Natural Product Studies (SNPS) Jadavpur University, Kolkata, India	June 30 – July 01, 2023	CARI, Kolkata
8	Dr. Dipsundar Sahu <sup>1</sup> , Dr. G. Babu <sup>2</sup>	Anti-obesity and hypolipidemic drugs (Medohara and Lekhaniya dravyas) in Ayurvedic classics: A critical review.	“Role of Medicinal plants to combat metabolic disorders and associated pathological complications”	School of Natural Product Studies (SNPS) Jadavpur University, Kolkata, India	June 30 – July 01, 2023	CARI, Kolkata
9	Rajesh Bolledu, Jyoti Dahiya, Sreya Dutta, Simmi Mall, Anupam K. Mangal & G. Babu	Phytochemical standardization and Anti-Diabetic activity of various extracts of Abutilon indicum fruit	“Role of Medicinal plants to combat metabolic disorders and associated pathological complications”	School of Natural Product Studies (SNPS) Jadavpur University, Kolkata, India	June 30 – July 01, 2023	CARI, Kolkata
10	Sreya Dutta, Jyoti Dahiya, Rajesh Bolledu, Anupam K. Mangal, Simmi Mall & G. Babu	Establishment of Botanical and Phytochemical Standards for Quality Assessment of Linum usitatissimum L., an oil-based seed	“Role of Medicinal plants to combat metabolic disorders and associated pathological complications”	School of Natural Product Studies (SNPS) Jadavpur University, Kolkata, India	June 30 – July 01, 2023	CARI, Kolkata
11	Jyoti Dahiya, Deepak Kumar, Rajesh Bolledu, Sreya Dutta, Simmi Mall, Kalyan Hazra, Anupam K. Mangal, & G. Babu	Comparative chemical and antioxidant studies of stem bark and renewal aerial plant parts of Saraca asoca (Roxb.) Willd. followed by similarity analysis	“Role of Medicinal plants to combat metabolic disorders and associated pathological complications”	School of Natural Product Studies (SNPS) Jadavpur University, Kolkata, India	June 30 – July 01, 2023	CARI, Kolkata

12	Kalyan Hazra	Online invited lecture on the topic "Ayurveda the ancient wisdom, in light of modern instrumentations	Vishwa Ayurveda Parishad West Bengal Chapter	Vishwa Ayurveda Parishad West Bengal Chapter	11 <sup>th</sup> July 2023	CARI, Kolkata
13	Anupam K. Mangal Jyoti Dahiya & G. Babu	Establishment of best season for certain medicinal herbs by analyzing the seasonal variation in bioactive secondary metabolites following marker based analysis in HPLC	National conference on Future of Agriculture and Agriculture for Future Indian Perspective	Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir.	4-6 September, 2023	CARI, Kolkata
14	Dr. Dipsundar Sahu	"Role of Ayurveda in Prevention & Control of Lifestyle Disorders".	Lifestyle Disorders and Ayurveda (ALIFE 2023)	West Bengsl Ayurvedic Chikitsak Samity, Bhasha Bhaban, National Library, Alipur	26-27 November, 2023	CARI, Kolkata
15	Dr. A. K. Dixit (Co author)	Therapeutic potential of ayurvedic formulation in the management of Propylthiouracil induced hypothyroidism in rats: A pre- clinical approach	5 <sup>th</sup> Global Ayurveda Festival	Greenfield Stadium, Thiruvananthapuram, Kerala	01 <sup>th</sup> - 05 <sup>th</sup> December, 2023	CARI, Kolkata
16	Ms. Manosi Das	Aspects of Chemistry and Biological Activities of Coumarinolignoids – A Rare Group of Natural Products	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	CCRAS-CARI, Kolkata	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
17	Mr. Kalyan Hazra	Application of multiple development/gradient Thin Layer Chromatography (TLC) in determination of lipids in blood serum	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	CCRAS-CARI, Kolkata	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
18	Dr. Rajesh Bolleddu	Recent advancements and methodologies for <i>in vitro</i> evaluation of Antidiabetic activity	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	Central Ayurveda Research Institute	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
19	Susmita Roy , Ayan Samaddar ,	Endophytes: A critical overview on its biological	Trends in Biomedical Research:	Central Ayurveda Research	29 <sup>th</sup> and 30 <sup>th</sup> January of	CARI, Kolkata

	Sreya Dutta , Shuvadip Sarkar , Deepak Kumar , Anupam K Mangal , Amit Kumar Dixit	potential by	advances and challenges Conducted By: CCRAS-CARI, Kolkata	Institute	2024	
20	Dr. Deepak Kumar	Nuclear Magnetic Resonance investigation of the structural and dynamic properties of various anticancer drug loaded drug delivery systems	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	CCRAS-CARI, Kolkata	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
21	Dr. Suparna Saha	Pharmaceutical, analytical and experimental studies of Madhumehavinashini vatika and trivanga bhasma on streptozotocin induced diabetes mellitus in albino rats	Trends in Biomedical Research : Advances and Challenges	CARI, KOLKATA	29/01/2024 - 30/01/2024	CARI, KOLKATA
22	Dr. Shakti Bhushan	Recent Advances of Mercury in Therapeutic Use in Ayurvedic drug Preparation (Awarded Best Oral Presentation)	Trends in Biomedical Research : Advances and Challenges	CARI, KOLKATA	29/01/2024 - 30/01/2024	CARI, KOLKATA
23	Dr. Malayamaruth am Kalyankumarr aju ,	Research article	Alternative methods to Animal testing for Quality control of Pharmaceuticals: Advantages, Challenges and Regulatory perspective.by Malayamarutham Kalyankumarraju , Sharad. D.Pawar , Amit Kumar Dixit , G. Babu	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
24	Dr. Sudipto Debnath	Multifold C-C Coupling and Unorthodox Cyclization Catalysis for Selective Synthesis of Indolotriarylmethanes , Indolocarbazoles, and Their Analogues: A Control Experiment Study	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	CCRAS-CARI, Kolkata	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
25	Dr. Susmita	C-H	Trends in	CCRAS-CARI,	29 <sup>th</sup> and	CARI,



	Mondal	Functionalization Of Imidazoheterocycles Towards Biologically Active Compound	Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	Kolkata	30 <sup>th</sup> January of 2024	Kolkata
26	Ranjit Kumar Dey, Amit Kumar Dixit, Smarto Basak , Mortaja Hossain	Quality Management in clinical chemistry laboratory – A brief overview	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	Central Ayurveda Research Institute	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
27	Ayan Samadder, Kalyan Hazra , Susmita Roy , Amit Kumar Dixit, G. Babu	Evaluation of antibacterial effect of essential oil isolated from <i>Iris kashmiriana</i>	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	Central Ayurveda Research Institute	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
28	Smarto Basak , Amit Kumar Dixit , Ranjit Kumar Dey , Sanjay Kumar YR , G Babu	Models of Polycystic Ovarian Syndrome in Rodents: A Mechanistic Review	Trends in Biomedical Research: advances and challenges Conducted By: CCRAS-CARI, Kolkata	Central Ayurveda Research Institute	29 <sup>th</sup> and 30 <sup>th</sup> January of 2024	CARI, Kolkata
29	Dr. Debajyoti Das	Adverse Drug Reactions of Ayurvedic Medicines	Seminar on Pharmacovigilance programme initiative for ASU &H Drugs under the Central Sector Scheme of Ayush Oushadhi Gunvatta Evum Utpadan Samvardhan Yojana (AOGUSY)	CARI, Kolkata Venue: Rajib Gandhi Memorial Ayurvedic Colleghe & Hospital, Belley sankarpur, Kushdanga, North 24 Pgs.	31.01.2024	CARI, Kolkata.
30	A.K. Mangal, Rajesh Bolleddu, Jyoti Dahiya and G. Babu	“Evaluation of the best procurement time for certain medicinal herbs through HPLC & its comparative pharmmacognosy”	3 <sup>rd</sup> Indian Horticultural Summit-cum-International Conference 2024	Society for Horticultural Research and Developme nt, Uttar Pradesh at Rajasthan Agricultural Research Institute (SKNAgricultur e University, Jobner), Jaipur, Rajasthan, India	1-3 February, 2024.	CARI, Kolkata
31	Dr. Debajyoti Das	ADR reporting and Misleading	Seminar on “BADHAN	organized by National	25.02.24	CARI, Kolkata.

		advertisements in AYUSH Pharmacovigilance Programme	PRATISEDH"	Ayurveda Students & Youth Association (NASYA), W.B. Venue: Dharmatala, Bankura, W.B.		
32	Rajesh Bolleddu, A.K. Mangal, Sreya Dutta, Jyoti Dahiya, Simmi Mall and G. Babu	"In vitro anti Diabetic and high performance thin layer chromatography studies of <i>Abutilon indicum</i> (L.) Sweet leaves and Fruits"	Role of Medicinal Plants to ameliorate Diabetes and Related Disorders	School of Natural Product Studies, Jadavpur University	March 8-9, 2024	CARI, Kolkata
33	Dr. Debajyoti Das	Reporting of ADR and Misleading advertisements in Ayurveda.	National Seminar on Ayush Pharmacovigilance through online virtual mode.	National Ayurveda Students & Youth Association (NASYA), W.B. Venue: Kharagpur Homeopathic Medical College & Hospital, W.B .	22.03.24	CARI, Kolkata.
34	Dr. Debajyoti Das	Awareness programme on swachhata & brief activities on swachhata during financial year	Attended and delivered lecture as chairman of Swachhata Action Plan & Cleanliness Programme.	CARI, Kolkata	23.03.24	CARI, Kolkata.
35	Dr. Debajyoti Das	ADR reporting and Misleading advertisements in Ayurveda	Seminar on AYUSH Pharmacovigilance sensitization Programme	Jointly organized by CARI, Kolkata and NASYA W.B.	27.03.2024	CARI, Kolkata.

### III.3 Seminar/Conference/Workshop/Training/Meetings organized by the Institute:

S.N.	Name of the event	Venue	Date
1.	One day workshop on Importance of millets and their Nutritional and medicinal uses in daily life.	CARI Kolkata	20 <sup>th</sup> May, 2023
2.	4 <sup>th</sup> Meeting of the Project Evaluation Monitoring Committee (PEMC), under the Chairmanship of Prof. Vd. Rabinarayan Acharya, Director General, CCRAS. Mr. Rajkumar, Director, IFD, Ministry of Ayush, New Delhi, Sh. Deepak Kochhar, Deputy Director (Admn.), CCRAS, New Delhi, Dr. G. Babu, Director, CARI, Kolkata along with PEMC members, Programme Officers from CCRAS hqrs and Officers from CARI, Kolkata were present in the meeting.	CARI, Kolkata	16 <sup>th</sup> June, 2023
3.	Two days National Seminar on Preventions of Lifestyle Disorders through Ayurvedic Interventions by incorporating Millets.	Anthropological Survey of India, Kolkata	27 <sup>th</sup> & 28 <sup>th</sup> June, 2023
4.	Four days refresher training on experimental animal histopathology for CCRAS scientists.	CARI Kolkata	1 <sup>st</sup> -4 <sup>th</sup> August, 2023

5.	One day brainstorming session on Strategy & approach for characterization of complex botanicals of multi-ingredients (ASU) / Ayush Aahaar to ascertain the quality and authenticity.	CARI Kolkata	29 <sup>th</sup> August 2023
6.	Two days national seminar on Trends in Biomedical Research: Advances and Challenges.	CARI Kolkata	29 <sup>th</sup> -30 <sup>th</sup> January 2024
7.	Pharmacognostical studies training as a subject of Homeopathic Pharmacy for the students of NIH, Kolkata.	CARI Kolkata	28 <sup>th</sup> December 2023 to 31 <sup>st</sup> March 2024
8.	One day Pharmacovigilance sensitization Programme with NASYA West Bengal.	CARI Kolkata	26 <sup>th</sup> March 2024

#### III.4. Organized Arogya/Mela/Exhibition/Camp/Others:

S. N.	Name, date and place of event
1.	A Free Health Checkup Camp and awareness program on the theme of "Health & Wellness" under "Azadi ka Amrit Mahotsav 2.0" was conducted by CARI Kolkata at Rotary Club of Bolpur Rangamati, Bolpur, District Birbhum, West Bengal on 06.08.23 and 07.08.23.
2.	CARI Kolkata has organized routinely awareness program under the celebration of International Year of Millets 2023
3.	Under Mission LiFE Campaign, on the occasion of World Environment Day, Dr. G Babu, Director and Dr D.S. Sahu and Dr. Suparna Saha delivered lectures on "Love to Breath, Save the Trees" to the Staff & general public. More than 100 participants were made aware of the importance of protecting the environment and planting the trees
4.	Under Mission LiFE Campaign, on the occasion of World Environment Day, Dr. G Babu, Director, Dr. A. K. Mangal, Asst Director, and Dr T.K. Mandal Asst. Director delivered lectures on "How To Save Energy, Water, And How To Maintain An Environment In OPD" to the Staff & general public.
5.	Under Mission LiFE Campaign an awareness lecture was conducted at the village level by Dr Debajyoti Das and Dr. Sunayan Samanta from CARI Kolkata at Uttar Pratap Nagar, S 24 Pargana on "Save Environment, Save Life".
6.	CARI Kolkata, organized various awareness campaigns such as a painting competition for children, medical camp, and awareness lectures on 31 <sup>st</sup> May 2023 on the occasion of World Environment Day 2023 at New Colony Sporting Club, Panihati, 24, North Pargana.
7.	On the occasion of World Environment Day 2023 A medical camp was organized at Paschim Radhanagar, South 24 Pargana by Dr. Ranjita Ekka R.O (Ayurveda).
8.	AYUSH Awareness Programme'(Ayush Fair ) at Jhargram, West Bengal from 18.01.2024 to 20.01.2024
9.	Pharmacovigilance Awareness Program was held on 14.08.23 at Central Ayurveda Research Institute, Kolkata
10.	Pharmacovigilance Awareness Program was held on 22.08.23 at Central Ayurveda Research Institute, Kolkata
11.	Programme of Rashtriya POSHAN MAAH 2023 with theme SUPASHIT BHARAT, SAKSHAR BHARAT, SASHAKT BHARAT at OPD premises on 06.09.2023
12.	In observance Poshan Maah 2023, an awareness campaign was conducted at Orancha Free Primary School, 24 pargana. Activities included the distribution of plants, a painting competition, and the distribution of Poshan Kits on September 16, 2023.
13.	In observance of Poshan Maah 2023, an awareness campaign was conducted at Andulguri Primary School, Kapasati, Kolkata. Activities included the distribution of plants, a painting competition, and the distribution of Poshan Kits on September 29, 2023.
14.	CARI, Kolkata organized the "Ayush vyanjan mahotsav" (Ayush food festival) competition with a focus on millet recipes. The event was held on 4 <sup>th</sup> November 2023 guided by Dr. G. Babu, with Prof. B. C. Jana as the chief guest.
15.	CARI, Kolkata organized "Run for Ayurveda" event graced by the presence of His Excellency,

S. N.	Name, date and place of event
	the Honorable Governor of West Bengal, Shri CV Ananda Bose. Professor (Vaidya) Rabinarayan Acharya, Director-General, CCRAS and Mr. Debashish Biswas, an accomplished Everest mountaineer and Arjuna Awardee, were the honored guests.

### III.5. Radio and Doordarshan programme participated:

S.N.	Name of the person	Title of the topic	Name of the organizer / venue	Date
01	Dr. Dipsundar Sahu	“AYUSH VYANJAN MAHOTSAV” (AYUSH food festival) on the eve of 8 <sup>th</sup> Ayurveda Day	All India Radio	04.11.2023

### III.6. Invited Lectures/Guest participations/Oral presentation:

S. N.	Presenter	Subject/Topic	Organizer	Date
1.	Dr. A.K. Mangal	Resource person in 6 day CME program on “Dravyaguna- Basics to Advancement”	RARI, Pune	7 <sup>th</sup> - 12 <sup>th</sup> August 2023.
2.	Dr. Amit Kumar Dixit	Recent Advances and Regulatory Requirements in Drug Development	Assam down town University, Guwahati , through Video Conferencing	18 <sup>th</sup> August, 2023
3.	Dr. Amit Kumar Dixit	"Scope & Potential of Startups in Ayurveda, UNANI & Nutraceuticals: Indian & Global Perspective”	Avishkaran NIPER, Hyderabad through Video Conferencing	12 <sup>th</sup> September, 2023
4.	Dr. Amit Kumar Dixit	Research in Ayurveda: Scope and Perspectives	Presidency University, Kolkata	13 <sup>th</sup> September, 2023
5.	Dr. Amit Kumar Dixit	Chief guest lecture for “Hindi Pakhwada -2023” organized by Central Hindi Training Institute at, Nizam Palace Kolkata on	Central Hindi Training Institute Kolkata	18 <sup>th</sup> September, 2023
6.	Dr. G. Babu	Chief Guest lecture at Ninth Foundation Oration 2023 by Professor Asima Chatterjee Foundation Kolkata.	Meghnad Saha Auditorium, Kolkata	22 <sup>nd</sup> September 2023
7.	Dr. Biresh Kumar Sarkar	Guest lecture on the occasion of “World Pharmacist Day”	Adamas University, Barasat, Kolkata	25 <sup>th</sup> September 2023
8.	Dr. Amit Kumar Dixit	Chief guest lecture in “Hindi Mahotsav-2023”	ISRO, Kolkata	29 <sup>th</sup> September, 2023
9.	Dr. G. Babu	Guest lecture in International Conference "AdtU Pharmacon 2.0, organized by the faculty of Pharmaceutical Science"	Assam Down town University, Gawhati	13 <sup>th</sup> & 14 <sup>th</sup> October 2023

S. N.	Presenter	Subject/Topic	Organizer	Date
10.	Dr. G. Babu	Guest lecture in National Seminar on Life style Disorders in Ayurveda.	Paschimbanga Ayurveda Chikitsa Samity and Govt. Ayurvedic Doctors Association at National Library, Kolkata.	26 <sup>th</sup> November 2023
11.	Dr. G. Babu	Guest lecture in 3 <sup>rd</sup> International conference and byers and sellers meet on Medicinal plants used in Life style Products.	Jadavpur University, Kolkata	6 <sup>th</sup> to 8 <sup>th</sup> December 2023
12.	Dr. G. Babu	Chief Guest lecture in the inaugural ceremony of the 2-day International Conference Healthcare Next: 2K24 on The theme "Focused on Transformations in Healthcare Research Prospects, Challenges, and Sustenance".	Gitam University, Visakhapatnam	1 <sup>st</sup> - 2 <sup>nd</sup> February 2024
13.	Dr. Amit Kumar Dixit	Research funding and opportunities in India	UGC-MMTTC, Jodhpur, Rajasthan, through Video Conferencing	8 <sup>th</sup> February, 2024
14.	Dr. G. Babu	Presented R&D activities and achievements of CCRAS Institutes	In Regional Review meeting of "National Ayush Mission" of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Uttar Pradesh & West Bengal states held under the chairmanship of Sh. Sarbanada Sonowal, Hon'ble Union Minister of Ayush, Govt. of India at Hotel Chanakya, Patna.	15 <sup>th</sup> February 2024
15.	Dr. Biresh Kumar Sarkar	"Leveraging synergism: Industry-Academia Partnership for Implementation of National Education Policy" on the occasion of the celebration of "Pharma Anveshan 2024".	The Neotia University, School of Pharmacy, TNU, in association with IAPST, PCI and IIC, TNU	6 <sup>th</sup> March 2024
16.	Dr. Shakti Bhushan	Advanced Research in Renal Disorders in Ayurveda	3 <sup>rd</sup> annual ECME series ' kidney manthan 3.0'	14 <sup>th</sup> March 2024
17.	Dr. Amit Kumar Dixit	"Natural Products and Human Ailments"	Himalayan Pharmacy Institute, Majhitar, East Sikkim	15th to 17th March, 2024

### III.7. Seminar/Webinars/Various Events participated by the Officers/staff:

S	Participant	Name of the event and Topic	Date
	Dr. G. Babu, Dr. B.K. Sarkar	Review meeting of CCRAS, New Delhi "AVALOKNA" 2023", at CCRAS, New Delhi	04 <sup>th</sup> - 05 <sup>th</sup> April, 2023

S	Participant	Name of the event and Topic	Date
	Dr. A.K. Mangal Dr. A.K. Dixit Dr. S.D. Pawar Dr. T.K. Mandal		
	Dr. Amit Kumar Dixit	Attended meeting on “Institutional Animal Ethics Committee”, as a CPCSEA nominee at NIPER, Kolkata.	10 <sup>th</sup> April, 2023
	Dr. Amit Kumar Dixit	Attended Institutional Animal Ethics Committee as a CPCSEA member at Bose Institute, Kolkata.	20 <sup>th</sup> April, 2023
	All staff	Practical hands on training of Fire and evacuation drill in Fire service week	20 <sup>th</sup> April, 2023
	All staff	One-day workshop program on "Importance of Millets and their Nutritional and medicinal uses in daily life" at CARI Kolkata	20 <sup>th</sup> May 2023
	Dr. A.K. Mangal Dr. Rajesh Bolleddu Dr. Susmita Roy Dr. Deepak Kumar Ms. Jyoti Dahiya	04 Days Training on “General Requirements for the Competence of Testing and Calibration Laboratories as per ISO/IES 17025:2017” at CCRAS-CSMCARI Chennai.	24 <sup>th</sup> & 27 <sup>th</sup> May, 2023
	All staff	□□□□□ □□□□□□□□□□	03 <sup>rd</sup> June 2023
	All staff	Half-day workshop on “Environment Awareness and lifestyle changes for sustainable life” on World Environment Day-2023 at CARI Kolkata	05 <sup>th</sup> June 2023
	Dr. A.K. Mangal	Advanced Translation Training Programme conducted by Central Translation Bureau, New Delhi.	05 <sup>th</sup> -9 <sup>th</sup> June 2023
	All staff	World Accreditation Day 2023 at CARI Kolkata	9 <sup>th</sup> June, 2023
	All staff	World Blood Donor Day & Blood Donation camp at CARI Kolkata	14 <sup>th</sup> June 2023
	Dr. Sharad D. Pawar Dr. Lalrinpuia Dr. Rahul Singh Mr. Qadir Alam Dr. M. Kalyankumarraju	3 days GLP Training Programme at CSMCARI, Chennai	17 <sup>th</sup> -19 <sup>th</sup> June
	All staff	9 <sup>th</sup> International Day of Yoga Day (IDY) at CARI Kolkata	21 <sup>st</sup> June 2023
	All staff	Independent Research Ethics Society (IRES) in collaboration with CCRAS-CARI Kolkata organized an International Hybrid Seminar on “AYUSH: Advancement & Scope in Bengal” (800th AYUSH Samriddhi International Webinar Celebration) at Central Ayurveda Research Institute, Kolkata.	24 <sup>th</sup> June 2023
	Dr. Amit Kumar Dixit	Attended as a Member in the Institutional Animal Ethics Committee (IAEC) meeting of R. G. Kar Medical College, Kolkata.	26 <sup>th</sup> June, 2023
	All staff	Two days, national seminar on “Prevention of Lifestyle disorders through Ayurvedic intervention by incorporating millets” organized by CARI, Kolkata in collaboration with Anthropological Survey of India, Kolkata	27 <sup>th</sup> -28 <sup>th</sup> June, 2023
	Dr. Anupam K. Mangal,	Two days National Seminar on “National Seminar on Role of Medicinal plants to combat metabolic disorders and associated pathological	30 <sup>th</sup> June and 01 <sup>st</sup> July

S	Participant	Name of the event and Topic	Date
	Dr. Rajesh Bolledu, Ms. Sreya Dutta and Dr. Jyoti Dahiya	complications' organized by School of Natural Product studies, Jadavpur University, Kolkata, India.	2023
	All staff	Awareness programme on National Organ Donation Day at CARI Kolkata	3 <sup>rd</sup> August 2023
	All staff	□□□□□□□□□□□□□□□□ □□□□: "□□□□□□□□□□□□□□□□□□□□□□□□□□□□"	05 <sup>th</sup> September, 2023
	Dr. Amit Kumar Dixit	Attended as a Member in the Institutional Animal Ethics Committee (IAEC) meeting as CPCSEA Nominee at NIPER, Kolkata	08 <sup>th</sup> September, 2023
	All Staff	"□□□□□□□□□□□□□□□□□□□□2023"	14 <sup>th</sup> -29 <sup>th</sup> September 2023
	All Staff	An awareness webinar "The Role of Traditional and Regional Nutritious Food for Health Promotion " at CARI Kolkata	19 <sup>th</sup> September 2023
	Dr. Anupam K. Mangal, Mrs. Manosi Das, Mr. Kalyan Hazra, Dr. Rajesh Bolledu, Dr. Deepak Kumar Mrs. Jyoti Dahiya Dr. Sudipto Debnath	Ninth Foundation Oration Organized by Professor Asima Chatterjee Foundation, Kolkata	22 <sup>nd</sup> September 2023
	Dr. G. Babu	"CCRAS-MANTHAN-2023", a meeting to review the action taken on the recommendations of Avalokan-2023 and to plan for the next financial year 2024-25 held at CCRAS Headquarter office.	25 <sup>th</sup> and 26 <sup>th</sup> September 2023
	All Staff	Garbage Free India cleaning Drive (□□ □□□□□□ □□ □□□□ □□ □□□)organized by CARI Kolkata	1 <sup>st</sup> October 2023
	Dr. Amit Kumar Dixit	Deputed as expert trainer for "NABL (ISO 15189:2012)" and filed application for NABL accreditation at CARI, Patiala	25 <sup>th</sup> to 26 <sup>th</sup> October
	All Staff	Vigilance awareness week 2023	27 <sup>th</sup> Oct.-06 <sup>th</sup> Nov. 2023
	Dr. A.K. Mangal	Training programme "ICMR-CCRAS training on Ethics guidelines for biomedical & helath research involving human participants" organized in Hybrid mode by CARI-CCRAS, Ministry of Ayush, New Delhi and W.H.O Country office for India and ICMR Bioethics unit, New Delhi at CCRAS Headquarter.	3 <sup>rd</sup> November 2023.

S	Participant	Name of the event and Topic	Date
	Dr. Sharad D. Pawar Dr. Lalrinpuia Dr. Rahul Singh Mr. Qadir Alam Dr. M. Kalyankumarraju	Ayurinformatics Workshop at RARI, Pune and Bioinformatics Centre, Savitribai Phule Pune University, Pune	20 <sup>th</sup> -25 <sup>th</sup> November, 2023
	Dr. Amit Kumar Dixit	National Seminar on Lifestyle Disorders And Ayurveda at Paschimbanga Ayurved Chikitsak Samity, held at Anthropological Survey of India , Kolkata	24 <sup>th</sup> -25 <sup>th</sup> November, 2023
	All Staff	Constitution Day	26 <sup>th</sup> November 2023
	Dr Rajesh Bolleddu	Publication Pakwada organized by CCRAS, Hqrs at CARI, Bengaluru from	28 <sup>th</sup> Nov. to 2 <sup>nd</sup> Dec. 2023
	Dr. Amit Kumar Dixit	Two Days Management Development Programme on GEM & GFR at Arun Jaitley National Institute of Financial management, Faridabad, Haryana	30 <sup>th</sup> Nov.-01 <sup>st</sup> Dec., 2023
	Dr. A.K. Mangal	3 <sup>rd</sup> International Conference and Buyers Sellers Meet for Medicinal Plants Used in Lifestyle Products” organized by Jadavpur University	06 <sup>th</sup> -08 <sup>th</sup> December 2023
	Dr. Amit Kumar Dixit	Attended as a Member in the Institutional Animal Ethics Committee (IAEC) meeting as CPCSEA Nominee at Eminent Collage Of Pharmacy, Kolkata	08 <sup>th</sup> December, 2023
	Dr. Amit Kumar Dixit	Attended as a Member in the Institutional Animal Ethics Committee (IAEC) meeting as CPCSEA Nominee at NIPER, Kolkata	20 <sup>h</sup> December, 2023
	All Staff	हिंदीकार्यशाला विषय: "वैज्ञानिकलेखनमेंहिंदीकातकनीकीप्रयोग"	20 <sup>th</sup> December 2023
	Dr. Amit Kumar Dixit	Attended as a Member in the Institutional Animal Ethics Committee (IAEC) meeting as CPCSEA Nominee at KPC, Jadavpur Kolkata	23 <sup>rd</sup> December, 2023
	Dr. Amit Kumar Dixit	Attended as a Member in the Institutional Animal Ethics Committee (IAEC) meeting as CPCSEA Nominee at Eminent Collage Of Pharmacy, Kolkata, , through Video Conferencing	06 <sup>h</sup> January, 2024
	Dr. Amit Kumar Dixit	Laboratory Training on recent techniques in Molecular Biology and Bioinformatics at Department of Biosciences and Biomedical Engineering , Indian Institute of Technology Indore (IIT), Simrol, Indore , MP	08 <sup>th</sup> to 17 <sup>th</sup> January,2024
	Dr. Amit Kumar Dixit	Expert in meeting for vetting specification of Instruments/ Equipments for pathology laboratory through GeM at DACRIH, Kolkata	12 <sup>h</sup> February,2024
	All staff	Awareness Programme on “Pharmaco-vigilance in ASU & H Drugs &	21 <sup>st</sup> February,





**Name of Project: General Health Screening with Special Focus on Tuberculosis, Anemia, Haemoglobinopathies & Malnutrition and Ayurvedic Interventions for Better Health Outcomes in Students of Ekalavya Model Residential Schools (EMRS) functioning under M/o Tribal Affairs.**

Central Ayurveda Research Institute, Kolkata is being carried out the project from 8<sup>th</sup> March, 2024. The primary objectives of the project is to screen the general health condition of the students of EMRS with special focus on Anemia, Haemoglobinopathies, Malnutrition and Tuberculosis through Ayurvedic interventions as standalone/add-on. To fulfil the objectives of the project three EMRS schools at Jharkhand state named EMRS Bhognadih, EMRS Kathijoria and EMRS Tarsia has been allotted for screening & investigations of school children to CARI, Kolkata. The P.I. of the project along with other project staff has been visited those schools for conducting investigations / inspections programme on 11<sup>th</sup> & 12<sup>th</sup> March, 2024. The PI and Co-I of this project has been attended the interactive investigator's meet to discuss and finalise the implementation strategy of this project has been conducted on 22<sup>nd</sup> and 23<sup>rd</sup> March, 2024 at CCRAS Hqrs., New Delhi. The project has been sanctioned with Rs. 66,70,520/- for 02 years of duration for completion.

**B. COMPLETED PROJECTS: 01**

**Name of Project: Clinical Evaluation of Gokshuradi Guggulu and Nimbadi Churna in Vatarakta.**

The project was sanctioned on 28.07.2020 by the Council to evaluate clinical efficacy and safety of the Gokshuradi Guggulu and Nimbadi Churna in Vatarakta (GOUT). The project was sanctioned with Rs. 9,59,000/- in which Rs. 6,26,000/- has been released from Council and Rs. 4,80,050/- has been utilized for smooth completion of the project. Within stipulated time period, out of 55 targeted Patients 75 nos. patients have been screened, out of them 55 nos. patients have been enrolled, 49 nos. patients have been successfully completed and 06 nos. patients have been dropped out. All the drugs interventions were implemented as per there indication guideline and the requisite lab investigation (before treatment and after treatment) also done. The blood test for measuring specific laboratoey parameters and X-Ray of specific joint along with ECG has been done in case of screening patient. The study reveals the significance and safety and efficacy of mentioned drugs in mass implementation. It's also observed from the study that the Vatarakta (GOUT) among the study population has very much improved during the study period. No ADR/AE observed in enrolled patient within the study period. No significant pathological changes occur in the blood bio-chemical parameter.

**IV.1. (iii). Ayurveda Mobile Health Care Programme under Schedule Casts Sub-Plan (2023 - 2024):**

Ayurveda Mobile Health Care Program under schedule castes sub plan (SCSP) project was initiated by CCRAS, New Delhi and extended its research program in this institute in the year 2016 as per the council's letter of 65-4/2015-CCRAS/Admin/SCSP/Kolkata/315, dated 23<sup>rd</sup> September, 2015. In this project initially an amount of Rs.37,43,000.00/- (Rupees Thirty Seven Lakh Forty Three Thousand) was sanctioned (File No. HQ-PROJ013(11)/7/2023-PROJ/33 dated 26.04.2023 and later on Rs.38,80,000.00/- (Rupees Thirty Eight Lakh Eighty Thousand only) was sanctioned (F.No.HQ-PROJ13(11)/7/2023-PROJ/838/ dated 08.03.2024 for the year 2023-2024. In the year 2023-24 one IMR project was carried out under the project AMHCP-SCSP.

**Project: 01**

**Title of Project: "AMHCP-SCSP survey"**

**Name and Designation of**

**i) Principal Investigator:** Dr. Ranjita Ekka, Research Officer (Ay)

**ii) Co-Investigator(s):** a) Dr. Debajyoti Das, Research Officer (Ay)

**Duration of Research Project:** One year

i) Period required for pre-trial preparations: 1 Months

ii) Period which may be needed for collecting the data: 10 months

iii) Period that may be required for Annul report: 1 Months

**Aim:** To provide health care through Ayurveda and to observe the health status in the areas predominantly dwelled by the scheduled castes.

**Primary Objectives:**

- 1) To provide health care services through Ayurveda interventions (as adjuvant to the ongoing treatment if any) for various disease conditions through outreach OPDs and health camps.
- 2) To understand the health status of the target population through questionnaires

**Secondary Objectives:**

- 1) To provide preventive healthcare through awareness regarding Ayurveda based lifestyle advocacy.
- 2) To know about perception of the study population regarding Ayurveda for health care.

**Study duration:** One year (from the date of initiation of the work)

**Methodology**

The health survey of SC population were done in the 05 selected SC dominated villages nearby the institutes by the provided team. The sarpanch /In-Charge etc. of the selected Village/area were contacted and a brief appraisal of the project were given. The approval of Institutional Ethics Committee was obtained before initiating programme. Door to door survey were conducted to evaluate the health profile of the Scheduled caste population in the specially designed formats.

- Village information were collected in FORM-1.
- Information of each individual SC person in the households were interviewed using an Individual Questionnaire i.e. FORM-2.
- Information of each new patient & follow up cases were collected in OPD FORM.

**Inclusion criteria:**

- i. Person belongs to Scheduled Caste population of selected villages/ areas.
- ii. Willing to participate in the Health Survey.

**Exclusion criteria**

- i. Person belongs to other than SC community

**Study Site**

Selected 05 Villages:

**Study Type:** Cross sectional

**Total Sample Size:** 750 from each pocket, total 3750.

**Number of Groups-** One

**Laboratory Investigations**

Hb gm%, Blood sugar was carried out at their doorstep/ Medical camp.

**Procurement and supply of drugs**

The drugs utilized in the study were procured from the Council identified GMP certified pharmacies.

**Date of initiation:** 01<sup>st</sup> May 2023.

**Ethical Committee approval date:** F.6-34/2021-CARI/Tech/IEC/Part-IV/269 dated.13.05.2022 .

**Summary of the project:**

The Projects activities were being carried out as per guidelines of the council which include door to door survey pretending the socio economic & health status, care & support through medical camp (free health checkup & advice, free distribution of Ayurvedic medicine and free investigation of Random Blood Glucose & Hemoglobin) with the help of local community-based organization. Distribution of ICE materials and health awareness among the masses are also being carried out along with medical camp and survey.

SC Pockets of various gram panchayets and blocks of South 24 Parganas & North 24 Parganas district of West Bengal within 50 km of our institute namely Naskarhait, Uttar-pratapnagar, Paschim Radhanagr, Kamra-Atghara and Beonta-Ghoshpara were chosen for medical camp and documentation of Demographic information, food habits, hygienic condition and prevalence of diseases. Total 3750 population target were provided for the project. Numbers of Tour target were 200. Total Number of 3750 sc population were covered during door to door survey and total number of 6349 patients (including 5788 SC & 561 others)covered, among them total number of SC new patients were **2,020** and total 3768 number of SC follow up patients were treated during Ayurvedic Mobile Health Camp and 3,356 patients were screened for anemia (through Hemoglobin test) & 3,340 patients were screened for diabetes through capillary blood glucose test during the reporting period. Total 200 tours were

conducted in various sc pockets to the above said areas. Focus Camp on diseases like Osteo-arthritis, Hyper-tension, Diabetes, Skin diseases were conducted in camp area. Various lectures were conducted to promote health awareness among public under the awareness generation schedule like Ayush for immunity campaign, swachhata campaign, Vigilance awareness campaign, Poshan campaign, International year of Millets, World Ayurveda day etc. at the camp site.

**Project: 02**

**Title of Project: Effectiveness of Ayush Rasayana A & B on Quality of Life of elderly population- A cluster randomized study.**

**Name and Designation of**

**i) Principal Investigator: Dr. G. Babu, Director**

**ii) Co-Investigator(s): a) Ranjita Ekka, Research Officer (Ay.)**

India, the world's second most populous country, has experienced a dramatic demographic transition in the past 50 years, entailing almost a tripling of the population over the age of 60 years (i.e., the elderly) (Government of India, 2011). The prevalence of age related diseases is in an upward trend due to increased life expectancy in humans. By the year 2050, the world population of adults older than 65 years will comprise 1/5<sup>th</sup> of the global population. There is a gradual loss of muscle mass, strength and functionality with advancing age. Therefore there is an urgent need to find intervention that help in reducing the incidence of debilitating age related diseases and promote quality of life. In classical texts of Ayurveda, Rasayana is a term used for unique therapeutic measures intended to improve cognition, memory, physical strength and delay the degenerative processes. Ayush Rasayana A and B, are a coded Ayurvedic medicine, is effective on improving the general well-being of the elderly by enhancing their physical endurance, QOL, and cognition. "Rasayana" medicines described in Ayurveda play role in maintaining quality of life and enhancing the longevity.

Studies have shown the effect of **Ayush Rasayana A & Bon** improving the health-related Quality of Life & functional capacity of elderly population and also found safe in apparently healthy elderly population when administered in the prescribed dose. Ayush Rasayana A& B are developed from extracts of herbs pertaining rasayana property. Based on the classical claim, present work was planned to assess the effectiveness of **Ayush Rasayana A& Bon** Quality of Life of elderly population in selected SC/ST dominant areas.

The present community based study aims at assessing the efficacy of Ayurveda Interventions on Quality of Life of elderly population.

**Sample Size:** A total of 40 participants were enrolled in the study in two group i.e. 20 participants in each group.

**OBJECTIVES:**

**Primary:**

1) To assess effectiveness of **Ayush Rasayana A& Bon** quality of life of elderly population

**Secondary:**

1) To assess the effectiveness of **Ayush Rasayana A& Bon** quality of sleep of elderly population

2) To assess the effectiveness of **Ayush Rasayana A& Bon** functionality of elderly population

3) To assess the tolerability of **Ayush Rasayana A& Bamong** elderly population for 3 months

**MATERIALS AND METHODS**

**1. Methodology**

**Study Type:** Prospective Cluster Randomized multicenter study

**No. of Groups:** Two

**Randomization:** Cluster randomization

**Masking:** None.

**Endpoints:** Effectiveness.

**Study Intervention –**

**Group-I: (Details at Annexure I & II)**

**1) Ayush Rasayana A**

- **Dose:** 10 gm daily
- **Dosage form :** Powder
- **Anupana:** lukewarm water

- **Route of Administration:** Orally
- **Time of Administration:** once daily after food at bed time
- **Duration:** 06 days (from the day of enrolment)

## 2) Ayush Rasayana B

- **Dose:** 1.5 gm per day in two divided doses ( 2 capsules twice a day)
- **Dosage form:** Capsule (each containing 375 mg extracts)
- **Anupana:** lukewarm water
- **Route of Administration:** Orally
- **Time of Administration:** twice daily before food
- **Duration:** 84 days (from 7<sup>th</sup> day on wards to 90<sup>th</sup> day)

## 3) Ancillary Care through Ayurveda

### Group-II: Ancillary Care through Ayurveda

#### Timelines and deliverables -

**Total Study period:** 12 months

Preparatory activities: 2 months

Recruitment: 6 months

Intervention: 3 months

Statistical analysis: 1 month

Follow-visits: every month (34<sup>th</sup> day  $\pm$ 2, 62<sup>th</sup> day  $\pm$ 2, 90<sup>th</sup> day  $\pm$ 2 days)

#### **Selection Criteria:**

#### **Inclusion Criteria:**

- Elderly population of any sex, of age  $\geq 60$  to  $\leq 75$  years residing in the identified areas.
- Participants who are ambulatory and clinically stable with or without medication
- Participants willing to provide written informed consent for their participation in the study for 3 months.
- Participants scoring 5 or more in Katz Index of Independence in Activities of Daily Living

#### **Exclusion Criteria:**

- Participants with blood pressure  $\geq 160/100$  mm of Hg),
- Participants with HBA1C  $\geq 8$  %
- Participants with S. TSH  $> 10$  mIU/ml with or without medication, elevated liver enzymes (AST and/or ALT  $> 2$  times of the upper normal limit), impairment of renal function (defined as S. creatinine  $>$  upper normal limit),
- Participants with history of serious cardiac dysfunction or Pulmonary Dysfunction (Asthmatic and COPD patients), any severe cognitive or psychiatric illness, neurological disorders, hemorrhagic diseases, coagulation disorders within 90 days prior to the screening
- Participants having body mass index (BMI) less than 23 or more than 30 kg/m<sup>2</sup>
- Participants with history of cancer or chronic inflammatory conditions including but not limited to chronic infection like tuberculosis, leprosy, HIV, and collagen vascular diseases
- Participants on Hormone Replacement Therapy, steroid therapy, chemotherapy or immunosuppressive therapy
- Participants with alcohol use disorder (AUD)<sup>1</sup>(CAGE score  $> 2$ ) (Annexure III)
- Participants who are currently on any drugs that affect cognitive or physical function or on any nutritional supplements or any Ayush or folk medicine for maintaining quality of life
- Any other condition which PI may think can jeopardize the study.

#### **Withdrawal Criteria:**

- Occurrence of adverse event needing hospitalization or emergency management.
- Development of any condition mentioned in the exclusion criteria during the study period.
- Participants not compliant with the protocol or not willing to continue in the study.

\*\* The Investigator shall prepare a detailed justification for withdrawal of the participant and also indicate the line of further management-if needed. This will be informed to the Sponsor and the Ethics Committee within appropriate time as per AYUSH GCP guidelines.

#### **Primary outcomes**

1. Change in Quality of life (QOL) of elderly assessed by Older People's Quality of Life Questionnaire- Brief (OPQOL-BRIEF) (Time frame: Baseline, 34<sup>th</sup> day, 62<sup>nd</sup> day & 90<sup>th</sup> day) (Annexure IV)

### Secondary outcomes

1. Change in Katz Index of Independence in Activities of Daily Living (Time frame: Baseline & 90<sup>th</sup> day) (Annexure V)
2. Change in Quality of Sleep assessed by using Pittsburgh Sleep Quality Index (PSQI) (Time frame: Baseline & 90<sup>th</sup> day)
3. Change in the time required for Five Times Sit-to-Stand Test in both (Time frame: Baseline & 90<sup>th</sup> day) (Annexure VI)
4. Change in grading of shoulder joint mobility assessed through 3 simple physical manoeuvres for active ROM of the shoulder joints (Active abduction, external rotation and internal rotation) \* (Time frame: Baseline & 90<sup>th</sup> day) (Annexure VII)  
\* Each manoeuvre will be assessed by observing and grading range of mobility on a 3-point scale (fully able, 3, partially able, 2, or unable, 1) and pain with movement (no pain, 1, some pain, 2, and lots of pain, 3). The right and left sides will be scored separately. A sum score for all 3 manoeuvres on each side and for pain on each side will also be reported.
5. Any change in hematological and bio-chemical parameters (CBC, LFT and RFT) (Time frame: Baseline and 90<sup>th</sup> day)
6. Occurrence of treatment emergent adverse events during the study period

## II. Administrative Report (Staff Pattern & Administration)

### II.1.A. Staff pattern as per format given below:

S. N.	Name of the Sanctioned posts	No. of sanctioned posts	Name of the persons working against posts	No. of Vacant posts	Sex M/F	Whether SC/ST/OBC	Remarks
1.	Director	01	Dr. G. Babu	--	M	SC	Joined on 03.02.2023
2.	A.D. (Ay.)	01	Dr. T. K. Mandal	--	M	SC	Promoted on ad-hoc basis w.e.f. 25.11.2022.
3.	A.D. (Chemistry)	01	--	--	--	--	* Dr. A. K. Meena Posted at RARIDD, Gwalior against the vacancy of CARIDD, Kolkata.
4.	A.D. (Pharmacology)	01	Dr. Sharad D. Pawar	--	M	--	--
5.	A.D. (Pharmacognosy)	01	Dr. A. K. Mangal	--	M	--	--
6.	A.D. (Bio-chem.)	01	Dr. A. K. Dixit	--	M	--	--
7.	A.D. (Pathology)	01	--	01	--	--	--
8.	A.D. (Pharmacy)	01 <sup>#</sup>	Dr. B. K. Sarkar <sup>#</sup>	--	M	--	Joined on 13.08.2021 (FN) on temporary transfer along with the post from CARI, Jhansi.
9.	R.O. (Chemistry)	02+1 <sup>\$</sup>	Ms. M. Das	--	F	SC	--
			Mr. K. Hazra		M	--	--
			Dr. Deepak Kumar <sup>\$</sup>		M	OBC	Against the vacant post of CARIHD, Bhubaneswar

10.	R.O.(Pharmacology)	02	Dr. Lalrinpuia	01	M	ST	--
11.	R.O. (Ani./Exp./Path.)	01	Dr. Rahul Singh	--	M	--	--
12.	R.O. (Ayurveda)	10	Dr. L. D. Barik	03	M	OBC	Retired on 31.05.2023
			Dr. D. Das		M	OBC	--
			Dr. D. S. Sahu		M	OBC	--
			Dr. S. K. Debnath		M	OBC	Relieved on transfer to RARI, Port Blair w.e.f. 31.10.2023
			Dr. R. Ekka		F	ST	--
			Dr. A. Hetalben		F	SC	--
			Dr. S. Saha		F	--	--
			Dr. S. Bhushan		M	EWS	--
13.	R.O. (Medicine)	01	--	01	--	--	--
14.	R.O. (Pharmacy)	01	--	01	--	--	--
15.	R.O. (Pharmacognosy)	01	Dr. Rajesh Bolleddu	--	M	SC	--
16.	R.O. (Botany)	01	Ms. Sreya Dutta	--	F	--	--
17.	R.O.(Path.-Medical)	01	--	01	--	--	--
18.	R.O. (Microbiology)	01	Dr. Susmita Roy	--	F	--	--
19.	Statistical Officer	01	--	01	--	--	--
20.	Admn. Officer	01	Dr. H. O. Kaushik	--	M	--	--
21.	A.R.O. (Chemistry)	01	Mr. Manoj R. Batule	--	M	OBC (PWD)	--
22.	A.R.O (P'cology)	03	Mr. Qadir Alam	01	M	OBC	--
			Mr. M. K. Raju		M	OBC	--
23.	A.R.O (Botany)*	01	--	--	--	--	The post has been transferred to NRISH, Leh.
24.	A.R.O. (P'cognosy)	02	Ms. J. Dahiya	01	F	--	--
25.	R.A. (P'cology)	01	--	01	--	--	--
26.	R.A. (Chemistry)	04	Dr. S. Debnath	01	M	--	--
			Dr. S. Mondal		F	--	--
			Mr. R. K. Dey		M	OBC	--
27.	R.A. (Botany)	01	Ms. Simmi Mall	--	F	--	Joined on 11.11.2022
28.	R.A. (Pharmacy)	01	Mr. Parth R. Gharat	--	M	OBC (PWD)	Relieved on transfer to RARI, Pune w.e.f. 30.06.2023
29.	Sister-In-Charge	01	Ms. P. Ghosh	--	F	--	--
30.	Staff Nurse	05	Ms. B. Chakraborty	--	F	--	--
			Ms. M. Ash		F	OBC	--
			Ms. S. Hutait		F	--	Relieved on transfer posting on promotion to Sister I/c on 22.06.2023 at CARI, New Delhi
			Mr. N. S. Dindorya		M	SC	--
			Mr. D. S. Purviya		M	EWS	--
31.	Statistical Assistant	01	--	01	--	--	--

32.	Assistant	01	--	01	--	--	--
33.	Private Secretary	01	--	01	--	--	--
34.	Library & Information Assistant	01	--	01	--	--	--
35.	Social Worker	01	--	01	--	--	--
36.	Laboratory Technician: General**	08	Mr. S.C. Panday	07	M	--	One post has been transferred to NRISH, Leh
	Pharmacology	01	--	01	--	--	--
	Chemistry	02	Mr. B. Ganguly Mr. U. Hazra	--	M M	-- SC	--
	Pharmacognosy	01	--	01	--	--	--
37.	Panchakarma Technician	02	--	02	--	--	--
38.	Radiographer	01	--	01	--	--	--
39.	Pharmacist Grade - I	04	Mr. S. Dalui	--	M	SC	--
			Mr. D. Rana		M	OBC	--
			Mr. A. Jabbar		M	--	--
			Ms. S. Mondal		F	--	--
40.	UDC	04	Mr. P. Kumar	01	M	OBC	Relieved owing to repatriate under his parent organization after completion of deputation period under CCRAS w.e.f. 01.12.2023
41.	Driver	02	--	02	--	--	--
42.	Laboratory Assistant	02	--	02	--	--	--
43.	Laboratory Attendant***	07-1***	--	06	--	--	***One post has been transferred to NRISR, Leh.
44.	Lower Division Clerk	04	Ms. A. Rakshit	01	--	--	Retired on 31.03.2023
			Mr. A. Patra		M	SC	Relieved on resignation w.e.f. 26.07.2023
			Mr. A. Kumar		M	OBC	Joined on 22.03.2023
45.	Dark Room Assistant	01	Mr. R. Haldar	--	M	SC	--
46.	MTS (Panchakarma Attd.)	04	--	04	--	--	--
47.	MTS (Pharmacy Attd.)	02	--	02	--	--	--
48.	MTS (Animal Attendant)	03	--	03	--	--	--
49.	MTS (Female Attendant)	01	--	01	--	--	--
50.	MTS (Chowkidar)	01	--	01	--	--	--
51.	MTS (Cook)	02	--	02	--	--	--
52.	MTS (Kitchen Servant/ Cook Helper)	02	--	02	--	--	--
53.	MTS (Ward Boy)	03	--	03	--	--	--



54.	MTS (Aya)	03	Ms. Mina Kumari	02	F	SC	Joined on 29.03.2023 on compassionate ground.
55.	MTS (Field Attendant)	02	--	02	--	--	--
56.	MTS (Safaiwala)	05	Mr. M. Hazra	04	M	SC	--
57.	MTS (Dresser)	01	--	01	--	--	--
58.	MTS (Attendant Survey)	01	--	01	--	--	--
59.	Lift Operator	01	--	01	--	--	--
60.	MTS (Mali)	01	--	01	--	--	--
61.	MTS (Pharmacy Attd./ Labourer)	08	--	08	--	--	--
62.	MTS (Attendant)	02	--	02	--	--	--
63.	MTS (Peon)	02	--	02	--	--	--
64.	MTS (Animal Attd.-cum-Sweeper)	01	Mr. V. Kumar	--	M	SC	--
<b>Total</b>		<b>139-3 =136+ 1 + 1 = 138</b>					

**SYNOPSIS:**

	<b>1. Total sanction.</b>	<b>= 139</b>
	<b>2. Three (03) posts are transferred to NRISH, Leh.</b>	<b>= 136 (139-3)</b>
<b><u>Addition:</u></b>	<b>3.<sup>s</sup>One R.O. (Chemistry) joined against the vacant post of CARI, Bhubaneswar.</b>	<b>= 137 (136+1)</b>
	<b>4.<sup>#</sup>One A.D. (Pharmacy) joined along with the post of CARI, Jhansi.</b>	<b>= 138 (137+1)</b>

**Note:**

- \*The only post of A.R.O.(Botany) is transferred to NRISR, Leh.**
- \*\*One post of Laboratory Technician out of 12 is transferred to NRISR, Leh.**
- \*\*\*One post of Laboratory Attendant out of 07 is transferred to NRISR, Leh.**
- The sanctioned strength of the Unit now stands reduced from 139 to 136.**

**II.1.B. Area Wise Manpower Engaged at the Institute:**

Sl. No.	Name of the post	Total Nos. of manpower engaged	Remarks
1.	Security Personnel	14	Under GeM Contract Through Outsourcing Agency Area Wise
2.	Housing Keeping Personnel	11	Under GeM Contract Through Outsourcing Agency Area Wise

**II.1.C. Outsourcing/Contractual staff deployed against the vacant posts of the Institute:**

Sl. No.	Name of the post	Total Nos. of Sanctioned post	Total Nos. of manpower engaged	Remarks
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1.	Other Manpower	*Against vacancy	45	Under GeM Contract Through Outsourcing Agency
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#### II.1.D. Staff working against additional sanctioned posts through outsourcing/Contractual:

Sl. No.	Name of the post	Total Nos. of manpower engaged	Remarks
1.	Other Manpower [(Consultant/O.A. (Hindi))]	01	Sanction letter No. 12-9/2009-CCRAS/Estt./Vo.II/276 dated 20.01.2012 (Engaged Under GeM Contract Through Outsourcing Agency)
2.	Data Entry Operator (Hindi Typist)	01	Sanction letter No. 12-9/2009-CCRAS/Estt./Vo.II/276 dated 20.01.2012 (Engaged Under GeM Contract Through Outsourcing Agency)
<b>Total</b>		<b>02</b>	

#### II.1.E. Contractual Staff engaged at Military/Cantonment Hospitals under Ministry of Defense (DGDE):

Sl. No.	Name of the post	Total Nos. of manpower engaged	Remarks
1.	Ayurveda General Duty Medical Officer	01	J. C. Bose General Hospital, Barrackpore Cantonment, Ministry of Defence, Govt. of India
2.	Ayurveda Pharmacist	01	
<b>Total</b>		<b>02</b>	

#### II.1.F. Project personnel working under various IMR & outreach programmes:

S. N.	Name of the post	Total Nos. of manpower engaged	Remarks
1.	SRF (Pharmacology)	01	IMR-Arthritic Rat Model Project. Simhanada Guggulu
2.	JRF (Chemistry)	02	Development of quality standards of selected extra-pharmacopoeial drugs (AnuktaDravyas) used in local health traditions collected from different regions of India
	JRF (Botany)		
3.	JRF (Chemistry)	01	To establish the best procurement time for certain herbs by analyzing the seasonal variation in bioactive secondary metabolite with quantitative HPLC Part-II
4.	JRF (Botany)	01	Digitalization and indexing of herbarium sheets at CARI Kolkata collected from 1970-2000
5.	JRF (Chemistry)	01	Isolation of Marker/PRS compounds of selected Medicinal Plants
6.	JRF (Chemistry)	01	Comparative Pharmacognostical and Phytochemical Standardization of Commonly Adulterating Ayurvedic Drugs and Their Adulterants

S. N.	Name of the post	Total Nos. of manpower engaged	Remarks
7.	JRF (Ay.)	01	Central Sector Scheme on Pharmacovigilance of ASU &H Drugs under Ministry of AYUSH, Government of India.
8.	SRF (Ay.)	01	Process validation and Pharmaceutical Standardization and Estimation of Shelf Life Study of Abhijita Taila, Madhukadi Taila and Vyaghri Taila
9.	JRF (Biochemistry/Biotechnology/Bioinformatics/Life Sciences)	01	Evaluation of anit-cancerous potential, in silico pharmacological analysis and molecular mechanism of Kanchar guggulu in ovarian cancer $\mu$ Tumor spheroids and in in-vivo model
10.	SRF (Ay.)	01	Morbidity and Healthcare-seeking behavior of the patients visiting the Ayurveda healthcare facilities of the DGAFMS Hospitals: A cross-sectional survey study
11.	SRF (Ay.)	01	Process Validation and Pharmaceutical Standardization and Estimation of Shelf Life Study of Vacalasanadi Taila, Somaraji Taila, Hingutriguna Taila and Yastimadhu Ghrta
12.	SRF (Ay.)	02	AMHCP (SCSP) Project.
13.	Pharmacist	01	AMHCP (SCSP) Project.
14.	Office Assistant	01	AMHCP (SCSP) Project.
15.	Laboratory Technician	01	AMHCP (SCSP) Project.
16.	Driver cum MTA	01	AMHCP (SCSP) Project.
17.	SRF (Ay.)		General Health screening with special focus on Tuberculosis, Anaemia, Hemoglobino-pathies & Malnutrition and Ayurveda intervention for better health outcomes in the students of Ekalavya Model Residential Schools (EMRS) functioning under M/o Tribal Affairs EMR-Eklavya School
18.	Office Assistant	01	
19.	MTA	01	
<b>Total</b>		<b>20</b>	

## II. 2. No. of Staff according to group:

Sl. No.	Group	Number of Staff						Whether roster maintained or not
		General	SC	ST	OBC	Others	Total	
1.	A	10	05	02	05	01	23	Yes
2.	B	07	01	00	05	01	14	-do-
3.	C	05	04	00	04	00	13	-do-
4.	MTS	00	03	00	00	00	03	-do-
<b>Total</b>		<b>22</b>	<b>13</b>	<b>02</b>	<b>14</b>	<b>02</b>	<b>53</b>	

## II.3. Expenditure:

<b>Sl. No.</b>	<b>Components</b>	<b>S.T. Category</b>	<b>Others</b>	<b>Total</b>
<b>1.</b>	Male components	1,991,764.00	55,723,040.00	57,714,804.00
<b>2.</b>	Female components	1,906,356.00	16,868,771.00	18,775,127.00
<b>Total</b>				<b>76,489,931.00</b>

Powers and Duties of Officers and Employees

CARI, Kolkata is under the purview of CCRAS, Ministry of Ayush, Govt. of India. This Institute is headed by the Director (Institute), who is assisted by the Assistant Directors, Research Officers, Assistant Research Officers, Sister Incharge, Staff Nurse, Research Assistant, Pharmacist, Technician & Ministerial Staff. The Powers and Functions of the Director of this Institute is as per delegated power provided by the Council.

The procedure followed in the decision making process,  
including channels of supervision and accountability

The CARI, Kolkata is taking decision on various issues in the following manners:

This Institute has a mandate in Research Activities framed by the CCRAS and decisions are arrived from Hqrs. Level through PEMC, SFC etc.

The final decision making authority is Governing Body of the Council/Council.

Norms set for discharge of functions

As per the Bye-Laws of the Council (CCRAS), provided time to time.

The rules, regulations, instructions, manuals and records, held by it or under its control or used by its employees for discharging its functions

1. Manual of Office Procedure
2. Fundamental Rules and Supplementary Rules(FR&SR)
3. CCS(Classification, Control and Appeal) Rules 1965
4. CCS(Conduct) Rules 1964
5. General Financial Rules(GFR)
6. Delegation of Financial Power Rules
7. CCRAS (Pension) rules in line with CCS (Pension) Rules
8. Central Services (Medical Attendance ) Rules
9. Central Civil Service Leave Rules
10. Central Civil Services Leave Travel Concession Rules
11. Central Vigilance Commission (CVC) Manual





A statement of the categories of documents that are held by it or under its control

No such documents are held in Vigilance Section that needs to be disclosed under this Section.

The particulars of any arrangement that exists for consultation with, or representation by, the members of the public in relation to the formulation of its policy or implementation thereof

**Nil**

A statement of Boards, Councils, Committees and other bodies consisting of two or more persons constituted as its part or for the purpose of its advice, and as to whether meetings of those Boards, Councils, Committees and other bodies are open to the public, or the minutes of such meetings are accessible for public

The following Boards/Committees are constituted:

**Institutional Ethical Committee (Human Research)**

S.N.	Name & Designation of IEC Members	Mob. No.	E-mail id
1.	Dr. Abichal Chattopadhyay – Chair Person	9830188238	<a href="mailto:abichalchattopadhyaya@gmail.com">abichalchattopadhyaya@gmail.com</a>
2.	Dr. Avijit Hazra- Basic Medical Scientist	9831188172	<a href="mailto:blowfans@yahoo.co.in">blowfans@yahoo.co.in</a>
3.	Dr. Rupnarayan Bhattacharya- Clinician	9830084462	<a href="mailto:rupnarayan.bhattacharya@gmail.com">rupnarayan.bhattacharya@gmail.com</a>
4.	Dr. Tapas Kumar Dey- Social Scientist	9830812864	<a href="mailto:tapasdey.vcl@gmail.com">tapasdey.vcl@gmail.com</a>
5.	Ms. Dhiswari Nag – Legal Expert	9433818761	<a href="mailto:dhiswari.advocate@gmail.com">dhiswari.advocate@gmail.com</a>
6.	Mr. Swami Shastrajnananda- Lay Person	9163449776	<a href="mailto:shastrajnanandaswami@gmail.com">shastrajnanandaswami@gmail.com</a>
7.	Ms. Piu Ghosh – Member	9775649279	<a href="mailto:meetpiu2010@gmail.com">meetpiu2010@gmail.com</a>
8.	Ms. Manosi Das- Member	8777343915	<a href="mailto:manosi_das@rediffmail.com">manosi_das@rediffmail.com</a>
9.	Mr. Utpal Hazra- Member	9477026395	<a href="mailto:utpalhazr@gmail.com">utpalhazr@gmail.com</a>
10.	Dr. Tushar Kanti Mandal- Scientific Member	9434737577	<a href="mailto:drmandalk@gmail.com">drmandalk@gmail.com</a>
11.	Dr. Saroj Kumar Debnath- Alternate Member	9477404010	<a href="mailto:sarojkumardebnath@gmail.com">sarojkumardebnath@gmail.com</a>
12.	Dr. Dipsundar Sahu- Member Secretary	8895173999	<a href="mailto:drdssahu@gmail.com">drdssahu@gmail.com</a>

**Institutional Animal Ethics Committee:**

<b>S.N</b>	<b>Name &amp; Designation</b>	<b>Designation in IAEC</b>
1.	Dr. Gajji Babu, Director, CARI, Kolkata	Biological Scientist, Chairperson
2.	Dr. Lalrinpuia, Research Officer (Pharmacology), CARI, Kolkata	Scientist In-charge of Animal House Facility, Member Secretary
3.	Dr. Rajesh Bolledu, Research Officer (Pharmacognosy), CARI, Kolkata	Scientist from different discipline
4.	Dr. Susmita Roy, Research Officer (Microbiology), CARI, Kolkata	Scientist from different discipline
5.	Dr. Rahul Singh, Research Officer (Animal Experimental Pathology), CARI, Kolkata	Veterinarian
6.	Dr. Indranil Samanta, Associate Professor, Department of Veterinary Microbiology, West Bengal University of Animal and Fishery Sciences, 37-K.B. Sarani, Belgachia, Kolkata-700037	Main Nominee, CPCSEA
7.	Dr. Pallab Kanti Halder, Professor, Department of Pharmaceutical Technology, Jadavpur University, Kolkata - 700032, West Bengal	Link Nominee
8.	Dr. Soumi Sukla, Veterinarian, National Institute of Pharmaceutical Education and Research (NIPER), Chunilal Bhawan (Adjacent to BCPL), 168, Maniktala Main Road, Kolkata-700054	Scientist from outside of the Institute
9.	Dr. Prasenjit Mondol, Associate Professor, Brainware University, Department of Pharmaceutical Techonology, 398-Ramkrishnapur Road, Barasat, Kolkata-700125	Socially aware Nominee

**Personal details of all regular staff of this Institute**

Sl. No.	Name (no Salutation)	Designation	E-mail I'd (.gov/ .nic)	Contact Number
1	Gajji Babu	Director (Institute)	<a href="mailto:gajjibabu@ccras.nic.in">gajjibabu@ccras.nic.in</a>	033 2367 3808
2	Biresh Kumar Sarkar	A.D. (Pharmacy)	<a href="mailto:bireshkumar@ccras.nic.in">bireshkumar@ccras.nic.in</a>	033 2367 1002
3	Anupam Kumar Mangal	A.D. (P'cognosy)	<a href="mailto:ak.mangal@ccras.nic.in">ak.mangal@ccras.nic.in</a>	033 2367 1002
4	Amit Kumar Dixit	A.D. (Bio-Chem.)	<a href="mailto:dr.akdixit@gov.in">dr.akdixit@gov.in</a>	033 2367 1002
5	Sharad Daulatrao Pawar	A.D. (Pharmacology)	<a href="mailto:sd.pawar@ccras.nic.in">sd.pawar@ccras.nic.in</a>	033 2367 1002
6	Tushar Kanti Mandal	A.D. ((Ayurveda)	<a href="mailto:tushar.mandal70@gov.in">tushar.mandal70@gov.in</a>	033 2367 1002
7	Debajyoti Das	R.O. (Ayurveda)	<a href="mailto:debajyoti.das@ccras.nic.in">debajyoti.das@ccras.nic.in</a>	033 2367 1002
8	Dipsundar Sahu	R.O. (Ayurveda)	<a href="mailto:dr.dssahu@gov.in">dr.dssahu@gov.in</a>	033 2367 1002
9	Manosi Das	R.O. (Chemistry)	<a href="mailto:manosi.das@gov.in">manosi.das@gov.in</a>	033 2367 1002
10	Kalyan Hazra	R.O. (Chemistry)	<a href="mailto:hazra.kalyan@gov.in">hazra.kalyan@gov.in</a>	033 2367 1002
11	Amin Hetalben	R.O. (Ayurveda)	<a href="mailto:drhetal.amin@gov.in">drhetal.amin@gov.in</a>	033 2367 1002
12	Lalrinpuia	R.O. (P'cology)	<a href="mailto:dr.lalrinpuia@gov.in">dr.lalrinpuia@gov.in</a>	033 2367 1002
13	Rajesh Bolleddu	R.O. (P'cognosy)	<a href="mailto:rajesh.bolleddu@gov.in">rajesh.bolleddu@gov.in</a>	033 2367 1002
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17	Shakti Bhushan	R.O. (Ayurveda)	<a href="mailto:shakti.bhu@ccras.nic.in">shakti.bhu@ccras.nic.in</a>	033 2367 1002
18	Deepak Kumar	R.O. (Chemistry)	<a href="mailto:deepak.k@ccras.nic.in">deepak.k@ccras.nic.in</a>	033 2367 1002
19	Susmita Roy	R.O. (Microbiology)	<a href="mailto:susmita.roy@ccras.nic.in">susmita.roy@ccras.nic.in</a>	033 2367 1002
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27	Simmi Mall	R.A. (Botany)	<a href="mailto:simmimall93@gmail.com">simmimall93@gmail.com</a>	033 2367 1002
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29	Piu Ghosh	Sister Incharge	<a href="mailto:piu.ghosh@ccras.nic.in">piu.ghosh@ccras.nic.in</a>	033 2367 1002
30	Baisakhi Chakraborty	Staff Nurse	<a href="mailto:b.chakraborty@ccras.nic.in">b.chakraborty@ccras.nic.in</a>	033 2367 1002
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32	Naveen Singh Dindorya	Staff Nurse		033 2367 1002
33	Dilip Singh Purviya	Staff Nurse		033 2367 1002
34	Sandip Dalui	Pharmacist	<a href="mailto:sandip.dalui@ccras.nic.in">sandip.dalui@ccras.nic.in</a>	033 2367 1002
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42	Ankit Kumar	LDC	<a href="mailto:ankit.kumar91@ccras.nic.in">ankit.kumar91@ccras.nic.in</a>	033 2367 1002
43	Magaram Hazra	MTS	<a href="mailto:magaram.hazra@ccras.nic.in">magaram.hazra@ccras.nic.in</a>	033 2367 1002
44	Virendra Kumar	MTS	<a href="mailto:virendra.k@ccras.nic.in">virendra.k@ccras.nic.in</a>	033 2367 1002
45	Meena Kumari	MTS		033 2367 1002

The monthly remuneration received by each of its officers and employees.

List of Employees with Gross Monthly Remuneration of CARI, Kolkata

Sl. No.	Name & Designation	Level & Index	Gross Amount (Rs.)
1	Dr. G. Babu, Director	L-13/I-16	407826.00
2	Dr. Biresh Kumar Sarkar, A. D. (Pharmacy)	L-12/I-07	177857.00
3	Dr. Anupam Kumar Mangal, A.D. (Pharmacognosy)	L-13/I-05	256445.00
4	Dr. Amit Kumar Dixit, A.D. (Bio-Chemistry)	L-12/I-04	163697.00
5	Dr. Sharad D. Pawar, A.D. (Pharmacology)	L-13/I-04	289215.00
6	Dr. Tushar Kanti Mandal, A.D. (Ay.)	L-13/I-04	289215.00
7	Dr. Debajyoti Das, R.O. (Ay.)	L-12/I-10	223596.00
8	Dr. Dipsundar Sahu, R.O. (Ay.)	L-12/I-10	223596.00
9	Ms. Manosi Das R.O. (Chemistry)	L-11/I-04	142080.00
10	Mr. Kalyan Hazra, R.O. (Chemistry)	L-11/I-04	142080.00
11	Dr. Amin Hetalben Dayabhai, R.O. (Ay.) (01.04.2024 to 28.04.2024 = 28 days @100% Salary)	L-10/I-03	138718.00
	Dr. Amin Hetalben Dayabhai, R.O. (Ay.) (29.04.2024 to 30.04.2024 = 02 days @80% Salary)	L-10/I-03	7927.00
12	Dr. Lalrinpuia, R.O. (Pharmacology)	L-11/I-03	161526.00
13	Dr. Rajesh Bolleddu, R. O. (Pharmacognosy)	L-11/I-03	138386.00
14	Dr. Ranjita Ekka, R.O. (Ay.)	L-11/I-03	161526.00
15	Ms. Sreya Dutta, R.O. (Botany)	L-10/I-07	129390.00
16	Dr. (Ms.) Suparna Saha, R.O. (Ay.)	L-10/I-04	139491.00
17	Dr. Shakti Bhushan, R.O. (Ay.)	L-10/I-04	137691.00
18	Dr. Susmita Roy, R.O. (Microbiology)	L-10/I-04	121601.00
19	Mr. Deepak Kumar, R.O. (Chemistry)	L-10/I-04	119801.00
20	Dr. Rahul Singh, R.O. (Animal Experimental Pathology)	L-10/I-03	133965.00
21	Ms. Piu Ghosh, Sister In-charge	L-08/I-10	115869.00
22	Ms. Baisakhi Chakraborty, Staff Nurse	L-07/I-09	108188.00
23	Ms. Madhumita Ash, Staff Nurse	L-07/I-08	99779.00
24	Mr. Dilip Singh Purviya, Staff Nurse	L-07/I-03	90027.00

<b>Sl. No.</b>	<b>Name &amp; Designation</b>	<b>Level &amp; Index</b>	<b>Gross Amount (Rs.)</b>
25	Mr. Naveen Singh Dindorya, Staff Nurse	L-07/I-03	90027.00
26	Ms. Jyoti Dahiya, A.R.O. (Pharmacognosy)	L-07/I-04	92130.00
27	Mr. Batule Manoj Ranjit, A.R.O. (Chemistry)	L-07/I-04	97530.00
28	Mr. Qadir Alam, A.R.O. (Pharmacology)	L-07/I-04	92130.00
29	Mr. M. Kalyankumarraju, A.R.O. (Pharmacology)	L-07/I-04	92130.00
30	Mr. Sudipto Debnath, R.A. (Chemistry)	L-06/I-04	75099.00
31	Ms. Susmita Mondal, R.A. (Chemistry)	L-06/I-04	73899.00
32	Mr. Ranjit Kumar Dey, R.A. (Chemistry)	L-06/I-04	73899.00
33	Ms. Simmi Mall, R.A. (Botany)	L-06/I-02	70005.00
34	Mr. Sandip Dalui, Pharmacist	L-06/I-14	97840.00
35	Mr. Debdas Rana, Pharmacist	L-06/I-11	90052.00
36	Mr. Abdul Jabbar, Pharmacist	L-06/I-11	90052.00
37	Mrs. Suchandra Mandal, Pharmacist	L-06/I-04	74299.00
38	Mr. Biplab Ganguly, Laboratory Technician	L-05/I-13	79432.00
39	Mr. Utpal Hazra, Laboratory Technician	L-04/I-16	76246.00
40	Mr. Subhas Chandra Panday, Laboratory Technician	L-05/I-17	88636.00
41	Mr. Raja Haldar, Dark Room Asstt.	L-03/I-12	60129.00
42	Mr. Ankit Kumar, Lower Division Clerk	L-02/I-02	38310.00
43	Mr. Magaram Hazra, MTS (Safaiwala)	L-02/I-17	62415.00
44	Mr. Virender Kumar, Tra MTS (Ani. Attd.)	L-01/I-08	41517.00

The budget allocation to each of its agency, indicating the particulars of all plans, proposed expenditures and reports on disbursements made

### II.5. Details of the Budgetary Provision to the Institutes during reporting period: 2023-24

S. N.	Scheme	Budget	Fund received	Actual expenditure
1	Grant in AID Salary Pay & Allowance	74,562,570.00	74,562,570.00	74,562,570.00
	<b>Total (1)</b>	<b>74,562,570.00</b>	<b>74,562,570.00</b>	<b>74,562,570.00</b>
2	<b>GIA - General</b>			
a)	T.A. (for Demestic)	1,030,000.00	1,030,000.00	1,030,000.00
b)	Cotingencies as per DFPR			
i)	Wages	140,000.00	140,000.00	140,000.00
ii)	Office Expenses	3,000,000.00	3,000,000.00	3,000,000.00
iii)	Rent. Rate, Taxes	0.00	0.00	0.00
iv)	Other Admin Expenses (Hospital/Entertainment Expenses, Gifts, Expenses Conducted tour)	1,600,000.00	1,600,000.00	1,600,000.00
v)	Advertising and publicity	100,000.00	100,000.00	100,000.00
vi)	Professional Service (Payments for Professional and special service fees to staff/artist/payment to outsourcing agency)	25,800,000.00	25,800,000.00	25,800,000.00
vii)	POL (Petrol/Lubricants)	100,000.00	100,000.00	100,000.00
viii)	Printing & Publication	100,000.00	100,000.00	100,000.00
ix)	Other Charges	1,800,000.00	1,800,000.00	1,800,000.00
c)	Research Activity	9,000,000.00	9,000,000.00	9,000,000.00
d)	Seminer & Conference including workshop/mela	1,200,000.00	1,200,000.00	1,200,000.00
	<b>Total (2)</b>	<b>43,870,000.00</b>	<b>43,870,000.00</b>	<b>43,870,000.00</b>
3	Swachta Action plan (SAP)	300,000.00	300,000.00	300,000.00
4	GIA - SCSP	3,879,999.00	3,879,999.00	3,879,999.00
	<b>Total (1+2+3+4):</b>	<b>122,612,569.00</b>	<b>122,612,569.00</b>	<b>122,612,569.00</b>
<b>Details of the Budgetary Provision to the Capital, Projects and others during reporting period</b>				
5	Creation of Capital Assets	138,103,647.00	138,103,647.00	138,103,647.00
6	Head Quarter TA	249,595.00	249,595.00	249,595.00
7	8th Ayurveda Day	350,000.00	350,000.00	350,000.00
8	Alife 2023	40,000.00	40,000.00	40,000.00
9	Training Programme	472,250.00	472,250.00	472,250.00
10	All Projects (IMR+EMR+Collaborative+AAP+Fe llowship+TSP)	45,646,557.00	45,646,557.00	45,646,557.00
	<b>Total (1+2+3+4+5+6+7+8+9+10):</b>	<b>307,474,618.00</b>	<b>307,474,618.00</b>	<b>307,474,618.00</b>



{ Section4(1)(b)(xii) }

The manner of execution of subsidy programmes, including the amounts allocated and the details of beneficiaries of such programmes:

**Not Applicable**

2. subsidy/discounts are available On user charges for certain stake holders such as bonafide students, govt. organizations, etc.

Particulars of recipients of concessions, permits or authorisations granted by it

**Not applicable**

{ Section4(1)(b)(xiv)}

Details in respect of the information available to or held by it, reduced in an electronic form

**Available at CCRAS's website i.e. [www.ccras.nic.in](http://www.ccras.nic.in)**

**Library:**

**Publication for Sale** : The Library of this Institute has approx. 2200 Publications of CCRAS & Ministry of AYUSH, Govt. of India e.g. (Books/CDs) on Clinical Research, Drug, Research & Survey, Pharmacognosy, Pharmacology, Phytochemistry, Cultivation, Tribal Health Care Research Programme & Literary Research & JDRAS, JRAS, Journals etc. books for Sale. During Seminar's, Workshop Training Programmes, Health Camps approx. 71 Publication books were sold.

**Accession Books**: These books are for reference purpose are available in the Library for Officers & Staff. There approx. 3212 Books available on Ayurveda, Traditional Medicines, Chemistry, Pharmacology, Botany, Pharmacognosy, Hindi literatures & Sanskrit etc. Out of which approx. 1500 Books are related to Ayurveda. There are many books which were translated from various Manuscripts. These books are sorted as per different discipline & subject in the bookshelves and have been properly labeled for easy accessible. The Library Section has a separate Bookshelf for Hindi Books and they are categorized as per different subject viz. Literatures, Sanskrit/Hindi Grammar/Hindi Administrative Books.

**Annual Physical Verification**: A Committee was constituted for the Annual Physical Verification of Library Books. The Members of the Committee has done a remarkable job by physically counting the books, verified and submitted their reports to the competent Authority.

**Purchase of Books** :26 sets of Standard Reference Books were purchased for the year 2023-2024 for value of approximately Rs. 1,35,000/- (Rupees One lakhs thirty five thousand) only as detailed below :-

Title of Standard Reference Books	Publishers	Year of Publication
The Legacy of Susruta	Orient Black Swan Private Limited	2009
The Legacy of Vagbhata	Orient Black Swan Private Limited	2022
The Legacy of Caraka	Orient Black Swan Private Limited	2017
The Design And Manufacture of Medicines	Elsevier Limited	2022
Comparative Anatomy And Histology	Elsevier Academic Press	2018
Drug Regulatory Affairs	CBS Publishers & Distributors (P) Ltd	2020
Principles & Techniques of Biochemistry & Molecular Biology	Cambridge University Press	2018
The Theory and Practice of Industrial Pharmacy	CBS Publishers & Distributors (P) Ltd	2022
The Laboratory Rat	Elsevier Academic Press	2020
Remington The Science and Practice of Pharmacy	Elsevier Academic Press	2021
Indian Pharmacopoeia 2022 Vol : I to IV	The Indian Pharmacopoeia Commission	2022
Swamy's Handbook 2024	Swamy Publishers (P) Ltd	2024
Swamy's Income Tax on Salaries 2023-2024	Swamy Publishers (P) Ltd	2023
Swamy's Compilation of CCS CCA RULES	Swamy Publishers (P) Ltd	2024
Swamy's Compilation of CCS LTC Rules	Swamy Publishers (P) Ltd	2024

**Library Visits**: 10:00 AM to 05:00 PM. Officers & Staff are visiting the Library often and exploring these Books for benefit of their Projects, for Administration works and to improve the quality of the Research. Students, Research Scholars, Scientist of various disciplines and Faculty Members of Colleges, Institutions were visiting the Library. As and when require books are available in Library for public use.

**{ Section 4(1)(b)(xvi)**

The names, designations and other particulars of the PIO & APIO

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