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1. Overview

1.1. Objectives of the Council

Central Council for Research in Siddha (CCRS) is an autonomous organization under the Ministry of AYUSH, Government of India. The CCRS is an autonomous organization registered under the Societies Act in July 2010. The Ministry of AYUSH was created during the year 2014 for effective development and promotion of AYUSH systems. Central Council for Research in Siddha was established as a separate council during the year 2010, bifurcated from the erstwhile Central Council for Research in Ayurveda and Siddha (CCRAS). It is an apex body for Siddha system of medicine in India and an authority for setting up the standards of research in Siddha with regard to Siddha system of medicine for arriving the methodologies and guidelines.

The activities of the Council are carried out through its 8 Institutes / Units located all over India. The Council has also taken up collaborative studies with various Universities, Hospitals and Institutes to widen the research perspectives. In addition to these activities the Council is conducting outreach activities viz. Swasthya Rakshan Programme and Swachta Action Plan.

The objectives for which the Central Council for Research in Siddha has been established are:

1. The formulation of aims and patterns of research on scientific lines in Siddha.
2. To undertake any research or other programmes in Siddha.
3. The prosecution of and assistance in research, propagation of knowledge and experimental measures generally in connection with the causation, mode of spread and prevention of diseases.
4. To initiate, aid, develop and coordinate scientific research activities on various aspects especially fundamental and applied aspects of Siddha and to promote and assist research institutions for the study of disease cause, prevention and remedy.
5. To finance enquiries and researches for the furtherance of objectives of the Central Council.
6. To exchange information with other institutions, associations and societies interested in the objects similar to those of the Central Council especially in observation and study of diseases in India.
7. To prepare, print, publish and exhibit papers, posters, pamphlets, periodicals and books for furtherance of the objectives of the Central Council.

8. To issue appeals and make applications for money and funds in furtherance of the objectives of the Central Council and to accept for the aforesaid purpose gifts, donations and subscriptions of cash and securities and of any property whether movable or immovable.
9. To borrow or raise funds with or without security or on security mortgage charge, hypothecation or pledge of all or any of the immovable or movable properties belonging to the Central Council or in any other manner whatsoever.
10. To invest and deal with the funds and monies of the Central Council or entrusted to the Central Council not immediately required in such a manner as may from time to time be determined by the General Body of the Central Council.
11. To permit the funds of the Central Council to be held by the Government of India.
12. To acquire and hold, whether temporarily or permanently any movable or immovable property necessary or convenient for the furtherance of the objects of the Central Council.
13. To sell, lease, mortgage and exchange and otherwise transfer any of the properties movable or immovable of the Central Council provided prior approval of the Central Government is obtained for the transfer of immovable property.
14. To purchase, construct, maintain and alter any buildings or works necessary or convenient for the purpose of the Central Council.
15. To undertake and accept the management of any endowment or trust fund for donation, undertaking or acceptance whereof may seem desirable.
16. To offer prizes and grant of scholarships, including travelling scholarships in furtherance of the objects of the Central Council.
17. To create administrative, technical and ministerial and other posts under the Society and to make appointments thereto in accordance with the rules and regulations of the Society.
18. To establish a provident fund and/or pension fund for the benefit of the Council's employees and / or their family members.
19. To do all such lawful things either alone or in conjunction with others as the Central Council may consider necessary or as being incidental or conducive to the attainment of the above objects.
20. To undertake R & D Consultancy projects and transfer of patents on drugs and processes to industries.
21. To undertake R & D projects sponsored by industries in public / private sector.
22. To undertake international and inter-agency collaboration.

23. Utilization of results of research conducted and payment of share of royalties / consultancy fees to those who have contributed towards pursuit of such research.
24. To enter into arrangements with scientific agencies of other Countries for exchange of scientists, study tours, training in specialized areas, conducting joint projects etc.
25. To provide technical assistance to Govt. / Private Agencies in matters consistent with the activities of the Council.
26. To assist Medicinal Plants Board, Government of India in achieving its objectives.
27. To constitute small Management Committees consisting of eminent Scientists / Physicians of local areas to monitor the R & D activities and suggest remedial measures for the improvement of activities of all Central as well as Research Institutes of the Council.

Vision

To endeavour for quality and global governance in the discipline of Siddha by broad research for assuring the safety and cost-effective products to restrict / control / heal various disease conditions.

Mission

- To undertake scientific research works in Siddha in a time-bound and cost-effective manner, to coordinate, aid, promote and collaborate research with different units of sister Councils and Research Organizations.
- To publish research articles / research journals, to exhibit achievements and to propagate research outcomes for all the stakeholders. To provide consultancy services for research projects and drug development (adopting both classical and modern techniques / equipments for diagnosis, evolving evidence based Siddha drug treatment / therapy and promoting Siddha drug manufacture in collaboration with the other technical organizations).

The activities of the Council are

- Clinical Research
- Pre-clinical Research / Pharmacological Research
- Drug Research
- Medicinal Plant Research (Medico-Ethno Botanical Research, Pharmacognosy)
- Literary Research and Documentation

Apart from these activities the Council is conducting outreach activities viz. Swasthya Rakshan Programme and Swachta Action Plan.

The activities of the Council are carried out through its Institutes / Units / Co-located Centres positioned all over India.

1. Siddha Central Research Institute, Chennai, Tamil Nadu
2. Siddha Regional Research Institute, Puducherry
3. Siddha Regional Research Institute, Thiruvananthapuram, Kerala
4. Siddha Clinical Research Unit, Palayamkottai, Tamil Nadu
5. Siddha Medicinal Plants Garden, Mettur, Tamil Nadu
6. Siddha Clinical Research Unit, Safdarjung Hospital Campus, New Delhi
7. Siddha Clinical Research Unit, Bengaluru, Karnataka
8. Siddha Clinical Research Unit, Tirupati, Andhra Pradesh
9. Siddha Wing, AYUSH Wellness Clinic, Rashtrapati Bhawan, New Delhi
10. Siddha OP Wing at All India Institute of Ayurveda, New Delhi
11. Siddha Medical Services Unit, Health Centre, Pondicherry University

The Council has also taken up collaborative studies with various Universities, Hospitals and Institutes to widen the research perspectives.

1.2. Scheme-wise Achievements

1.2.1. Clinical Research

By adopting AYUSH GCP Guidelines, CCRS undertakes clinical trials to prove the efficacy of the Siddha drugs and to establish clinical safety of Siddha Drugs. The clinical trials are aimed to validate the claims stated in the literature or to test a new indication for varied health problems is one of the mandates of CCRS. Through Intra Mural Research (IMR) mode, as many as seven clinical research projects for the following disease conditions like Fibroid Uterus, Urolithiasis, Osteoarthritis, Functional Constipation and Adhesive capsulitis are in progress at the respective Institutes / Units of this Council. Under the collaborative clinical research during the period under report, one project viz. Status of labelling, drug information and branding in marketed anti-diabetic Siddha formulations: Cross Sectional Study: Chennai, Tamil Nadu, 2016 with National Institute of Epidemiology, ICMR, Chennai has been completed.

1.2.2. Drug Research

Medicinal Plants Research

CCRS is also carrying out medicinal plant research. In this direction, medico-ethno botanical survey team has conducted five tours in different localities in Tamil Nadu. During the course of survey, seven museum samples, 1044 kgs of raw drugs were collected and twenty five folklore claims were documented. As many as forty six new medicinal plants were also introduced in the demonstrative garden of SMPG, Mettur Dam. Besides this, two IMR medicinal plants research projects and a NMPB project is in progress.

Pharmacognostical Research

Identification / Authentication (A), microscopic (M), and powder microscopic (P) studies of one hundred and seven plants were done on payment basis. For Siddha Pharmacopoeia, powder microscopic illustrations of fourteen drugs were carried out. Powder microscopic characterization of fifteen single drugs was analyzed. In this reporting year, twelve new herbarium were preserved.

Drug Standardization Research

Standardization of fifteen single drugs and five compound formulations were carried out. Besides this, ten IMR projects pertaining to drug standardization are in progress. Standardization of 20 compound formulations were completed through external funding in project mode. Under IMR project scheme, one collaborative project entitled "In-process standardization of Velvanga Parpam (VP) - a classical Siddha drug and a pilot study to evaluate its safety and therapeutic efficacy in madhumegam (type II Diabetes mellitus)" with Mother Theresa Post Graduate and Research Institute of Health Sciences (MTPG & RIHS) is in progress during the reporting period.

Pharmacological Research

Efficacy studies for three compound formulations and toxicity studies for one compound formulation were completed. Efficacy studies for one compound formulation is in progress which is an external funded project. Apart from this, eleven IMR research projects with respect to pharmacological studies are in progress. Under the IMR collaborative mode, during the period under report, one project viz. Preclinical Safety and Efficacy of Nuna Kadugu (Internal Medicine) and Nuna Thailam (External Medicine) in Venpadai (Vitiligo) with Sri Ramachandra University, Chennai is in progress.

1.2.3. Literary Research

Under this, collection of old cudgeon manuscripts, old unpublished handwritten manuscripts, rare books and cataloguing them into different headings like transcription, translation, annotation and publishing rare works apart from preservation is carried out. During the period under report, sixty five e-books were added to the e-library and three books were published. Besides this, four IMR literary research projects are in progress.

AYUSH Research Portal - A web based portal for research articles in AYUSH is being updated periodically. As on date, 1108 scientific articles have been uploaded in the AYUSH Research Portal.

1.2.4. Outreach activities

Swasthya Rakshan Programme

This programme has been implemented through our seven peripheral Institutes / Units in five states. Twelve villages / colonies are covered under this programme and medical assistance were provided to 12,023 patients.

Poshan Abhiyaan activities

As per the direction of Ministry of AYUSH, Poshan Abhiyaan activities were performed in eight peripheral institutes / units of CCRS to create awareness and knowledge dissemination about Nutrition through Siddha system of medicine among the children, pregnant women and lactating mothers.

1.2.5. Siddha Pharmacopoeia Committee

The Siddha Pharmacopoeia Committee (SPC) with the mandate of establishing quality parameters for Siddha drugs and formulations is working under the aegis of the Ministry of AYUSH. It is currently functioning at CCRS Headquarters, Chennai. Manuscripts of two new publications namely Siddha Formulary of India (SFI), Part III (Tamil version) and SFI, Part II (English version) have been approved by SPC and sent to PCIMH for further process at Commission's end. Consequently, Scientific Body, PCIMH has recommended that the drafts shall be uploaded on website for inviting stakeholders' comments after proper formatting of the document in format acceptable to PCIMH. Revised editions of SFI, Part I (English) is in progress. Revised edition of SFI, Part I (Tamil) is under preparation for printing in PCIMH. Three projects (under category II) in line of scheme for outsourcing scientific work of PCIMH and carrying out Pharmacopoeial work in project mode were allotted to three PIs of institutes under CCRS namely SCRI, Chennai, SRRI, Puducherry and SRRI, Thiruvananthapuram.

1.2.6. IEC Activities

This Council has participated in as many as twelve Arogya melas, medical camps, fairs and exhibitions for propagation of knowledge and awareness about Siddha Medicine amongst general public and also has conducted training programmes, seminars, workshops and conferences at various parts of the Country.

Chennai
Date:



(Prof. Dr. K. Kanakavalli)
Director General

2. Management

2.1. Constitution of Several Bodies

CCRS was bifurcated from CCRAS on 1st September, 2010 and the General Body, Executive Committee and Scientific Advisory Board of the newly established Council were constituted. The details are as follows:

2.1.1. Committees

Table 1: General Body

S.N.	Designation / Name	Position
1.	Minister of State (IC), AYUSH	President
2.	Secretary, AYUSH	Vice-president
3.	Secretary / DG, Health Research	Member
4.	Director General, CSIR	Member
5.	Special Secretary & FA, Ministry of Health & Family Welfare	Member
6.	Joint Secretary, Ministry of AYUSH	Member
7.	Director, National Institute of Siddha, Chennai	Member
8.	Dy. Advisor (Siddha)/Jt. Advisor (Siddha)	Member
9.	Director, PCIMH, Ghaziabad	Member
10.	Prof. Dr. G. Ganapathy, Siddha Expert	Non Official Member
11.	Dr. I. Sornamariamammal, Siddha Expert	Non Official Member
12.	Dr. S. P. Thiyagarajan, Expert in Modern Medicine	Non Official Member
13.	Director General, Central Council for Research in Siddha	Member Secretary

Table 2: Executive Committee

S.N.	Designation / Name	Position
1.	Secretary, AYUSH	Chairperson
2.	Additional Secretary & Financial Advisor, Ministry of Health & Family Welfare	Member
3.	Joint Secretary, Ministry of AYUSH	Member
4.	Deputy Advisor (Siddha)/ Jt. Advisor (Siddha)	Member
5.	Dr. I. Sornamariamammal, Expert in Siddha	Non-Official Member
6.	Dr. S. P. Thiyagarajan, Expert in Modern Medicine	Non-Official Member
7.	Director General, CCRS	Member Secretary

Table 3: Scientific Advisory Board

S.N.	Name	Designation	Position
1.	Dr. G. Veluchamy	Former Director, Central Research Institute for Siddha, Chennai	Chairman
2.	Prof. Dr. N.J. Muthukumar	Director i/c, National Institute of Siddha, Chennai	Member
3.	Dr. Manoj Vasant Murhekar	Director, i/c, National Institute of Epidemiology (NIE), ICMR, Chennai	Member
4.	Prof. Santosh Kapuria	Director, CSIR-Central Leather Research Institute, Chennai	Member

5.	Dr. K. Kolandaswamy	Director, Director of Public Health and Preventive Medicine, Chennai	Member
6.	Dr. N. Murgesan	Director, Central Drug Testing Laboratory, Chennai	Member
7.	Dr. P. Sridevi Gnanaiah	Director, Kings Institute for Preventive Medicine and Research, Chennai	Member
8.	Dr. T. S. Chandra	Professor, Dept. of Biotechnology, Indian Institute of Technology, Chennai	Member
9.	Prof. Dr. K. Kanakavalli	Director General, CCRS, Chennai	Member Secretary



Figure 1: Fifth meeting of Scientific Advisory Board of CCRS, Chaired by Dr. G. Veluchamy, Chairman, SAB on 17th May, 2019

Table 4: Internal Complaints Committee related to Sexual Harassment of Woman at Workplace (Prevention, Prohibition and Redressal) Act, 2013

S.N.	Name	Designation	Position
1.	Prof. Dr. K. Kanakavalli	Director General, CCRS, Chennai	Chairman
2.	Dr. Shyamala Rajkumar	Research Officer (Siddha) S-II, CCRS, Chennai	Member
3.	Dr. R. Shakila	Research Officer (Chemistry) S-II, SCRI, Chennai	Member
4.	Dr. R. Meena	Research Officer (Siddha), SCRI, Chennai	Member
5.	Dr. V. Aarthi	Research Officer (Siddha), CCRS, Chennai	Member
6.	Dr. S. Bhavani	Research Officer (Siddha), SCRI, Chennai	Member
7.	Ms. T. Divya	Advocate, Chennai	Member

Table 5: Technical Audit Committee

S.N.	Name	Designation
1.	Prof. Dr. P. Jeyaprakash Narayanan	Former Vice-Principal, GSMC, Chennai.
2.	Prof. Dr. A. Kumaravel	Former Professor, GSMC, Palayamkottai.
3.	Dr. S. Thirunavukkarasu	Former A.D. (Siddha), CCRAS, New Delhi.
4.	Dr. S. Rajalakshmi	Former A.D. (Siddha), SRRI, Puducherry
5.	Dr. V. Gopal	Professor-cum-Principal & HOD (Pharmacognosy) MTPG & RIHS, Puducherry

6.	Dr. Sasikala Ethirajulu	Former Research Officer (Pharmacognosy) S-III, SCRI, Chennai
7.	Dr. Shyamala Rajkumar	Research Officer (Siddha) S-II, CCRS, Chennai

Table 6: Siddha Pharmacopoeia Committee

S.N.	Name / Designation	Position
1.	Dr. P. Jeyaprakash Narayanan	Chairman
Ex-Official Member		
2.	Joint Advisor (Siddha)	Member
3.	Director, PCIM &H	Member
4.	Director, PLIM	Member
5.	Director General, CCRS	Member
Non-Official Member		
Organic / Plant Chemistry		
6.	Dr. P. T. Perumal	Member
7.	Dr. R. Sundaram	Member
Pharmaceutical Chemistry		
8.	Dr. A. Rajasekaran	Member
Pharmacognosy		
9.	Dr. D. Chamundeeswari	Member
10.	Dr. Mamta B. Shah	Member
Gunapadam		
11.	Prof. Dr. M. Rajasekaran	Member
12.	Dr. S. Visweswaran	Co-opt Member
Siddha Pharmacy		
13.	Dr. M. Pitchiah Kumar	Member
14.	Dr. G. Sivaraman	Member
Siddha Industry		
15.	Dr. L. Sivakumar	Member
Bio-technology		
16.	Dr. M. Ramanathan	Member
Parpam / Minerals & Metals		
17.	Dr. K. Ponsingh	Member
18.	Dr. M. Ravichandran	Member

2.1.2. Subcommittees

Table 7: Muppu Subcommittee under SAB

S.N.	Name	Designation	Position
1.	Prof. Dr. A. Kumaravel	Former Chairman, SAB, CCRS	Chairman
2.	Dr. N. Chandrasekar	Professor & Head, Centre for Geo-Technology, Manonmaniam Sundaranar University, Tirunelveli.	Member
3.	Dr. C. Eleza	Medical Officer (Siddha), Kanyakumari	Member
4.	Dr. G. Manimaran	HOD, School of Tectonics, Dept. of Geology, V.O.C. College, Tuticorin.	Member

5.	Dr. R. Sudha	Asst. Medical Officer (Siddha), Denkanikottai, Krishnagiri.	Member
6.	Dr. S. Ayyasamy	DSMO, Kanchipuram & Thiruvalluvar Dist.	Member
7.	Dr. B. Michael Jeyaraj	Managing Trustee, Ulaga Tamil maruthuva kazhagam, Papanasam	Member
8.	Mr. A. Asokan	Traditional Healer, Vellore	Member
9.	Prof. Dr. K. Kanakavalli	Director General, CCRS	Member Secretary

Table 8: Varmam and Bone Setting Subcommittee under SAB

S.N.	Name	Designation	Position
1.	Prof. Dr. A. Kumaravel	Former Chairman, SAB, CCRS	Chairman
2.	Dr. K. Gopakumar	Former Research Officer, i/c, S - II, SCRI, Arumbakkam, Chennai	Member
3.	Prof. Dr. N. Shunmugom	Associate Professor, Dept. of Tamil, SRMV College of Arts & Science, Coimbatore	Member
4.	Dr. T. Kannan Rajaram	Siddha Physician, Nagercoil	Member
5.	Dr. R. Ramesh Babu	Siddha Physician, Kallakurichi	Member
6.	Dr. S. Natarajan	Research Officer (Siddha), SCRI, Chennai	Member
7.	Dr. K. P. Arjunan	Traditional Siddha Practitioner, Vellore	Member
8.	Thiru Arjunan Asan	Traditional Siddha Practitioner, Nagercoil	Member
9.	Mr. Karuna	Traditional Siddha Practitioner, Chennai	Member
10.	Dr. G. Manimaran,	HOD, School of Tectonics, V.O.C. College, Tuticorin	Member
11.	Prof. Dr. K. Kanakavalli	Director General, Chennai	Member Secretary

Table 9: Kattu and Kalangu Subcommittee under SAB

S.N.	Name	Designation	Position
1.	Prof. Dr. A. Kumaravel	Former Chairman, SAB, CCRS	Chairman
2.	Prof. Dr. I. Sornamariammal	Former Joint Director, DIMH, Chennai	Member
3.	Dr. Ravichandran	Reader & HOD, Dept. of Udal koorugal (Anatomy), GSMC, Chennai	Member
4.	Dr. T. Thirunarayanan	Secretary, CTMR, Chennai	Member
5.	Dr. S. Natarajan	Research Officer (Siddha), SCRI, Chennai	Member
6.	Dr. K. P. Arjunan	Traditional Siddha Practitioner, Vellore	Member
7.	Dr. Ravindranathan	Traditional Siddha Physician, Mathuranthagam	Member
8.	Prof. Dr. K. Kanakavalli	Director General, Chennai	Member Secretary

Table 10: Literary Research Subcommittee under SAB

S.N.	Name	Designation	Position
1.	Prof. Dr. P. Jayaprakash Narayanan	Chairman, SPC, CCRS	Chairman
2.	Dr. G. Ganapathy	Former Joint Director, D.I.M, Chennai	Member

3.	Dr. K. Palanichamy	Former Registrar, Tamil Nadu Siddha Medical Council, Chennai	Member
4.	Dr. B. Michael Jeyaraj	Managing Trustee, Ulagath Tamizh Maruthuva Kazhagam, Papanasam, Tirunelveli Dt	Member
5.	Prof. Dr. K. Kanakavalli	Director General, CCRS	Member Secretary

Table 11: Drug Research Subcommittee under SAB

S.N.	Name	Designation	Position
1.	Dr. G. Veluchamy,	Former Director, SCRI, Chennai	Chairman
2.	Dr. Sasikala Ethirajulu	Former Research Officer (Pharmacognosy) S-III, SCRI, Chennai	Member
3.	Dr. K. V. Venkateswaran	Professor and Head, Dept. of Veterinary Pharmacology and Toxicology, Madras Veterinary College, Chennai	Member
4.	Dr. T. Thirunarayanan	Secretary, Centre for Traditional Medicines Research, Chennai	Member
5.	Prof. Dr. K. Kanakavalli	Director General, CCRS	Member Secretary

Table 12: Clinical Research Subcommittee under SAB

S.N.	Name	Designation	Position
1.	Dr. S. Thirunavukkarasu	Former A.D. (S), CCRAS, New Delhi	Chairman
2.	Dr. S. Rajalakshmi	Former A.D. (S), SRRI, Puducherry	Member
3.	Dr. P. Manickam	Scientist D, NIE, ICMR, Chennai,	Member
4.	Dr. G. Sivaraman	Chief Siddha Physician & Managing Director, Arogya Health Care Pvt. Ltd, Chennai	Member
5.	Prof. Dr. K. Kanakavalli	Director General, CCRS	Member Secretary

2.2. Representation of Scheduled Caste / Scheduled Tribe in the Council services and Welfare measures for SC / ST

The Council is following the orders and guidelines issued from time to time by the Government of India in respect of representation of SC/ST in the services of the Council. The recruitments/promotions are made according to the reservation roster maintained for SC/ST. The number of SC/ST employees in CCRS belonging to various categories are indicated below:

Table 13: Number of employees in each category

Group	Number of Employees	SC Employees	% of SC Employees	ST Employees	% of ST Employees	Total No. of SC/ST Employees	% of SC/ST Employees
A	51	7	13.7	3	5.9	10	17.6
B	30	2	6.7	2	6.7	4	12.5
C	82	21	25.6	4	4.9	25	32.8
D	10	1	10	2	20	3	38.4
Total	164	31	18.9	11	6.7	42	25.6

Besides this, some of the research Institutes / Units are providing medical relief through OPD / IPD services and health benefits are being extended to a large number of SC/ST populations.

2.3. Organizational set-up

The implementation of recommendations of Nityanand Committee was reviewed by Joint Secretary (AYUSH) in a meeting held on 16-11-2009 under his Chairmanship for the development of the erstwhile CCRAS and notified on 15th December 2009, which included the presently functioning CCRS Institutes / Units also. After re-organization the Institutes / Units have been classified into 4 categories and the CCRS Institutes / Units fall under 'C' and 'D' categories as under:

Table 14: Acronyms of Peripheral Institutes / Units

S.N.	Institutes / Units	Abbreviations
Category 'C'		
1.	Siddha Central Research Institute, Chennai	SCRIC
Category 'D'		
2.	Siddha Regional Research Institute, Puducherry	SRRIP
3.	Siddha Regional Research Institute, Thiruvananthapuram	SRRIT
4.	Siddha Clinical Research Unit, Palayamkottai	SCRUP
5.	Siddha Medicinal Plants Garden, Mettur Dam	SMPGMD
6.	Siddha Clinical Research Unit, New Delhi	SCRUND
7.	Siddha Clinical Research Unit, Bengaluru	SCRUB
8.	Siddha Clinical Research Unit, Tirupati	SCRUT

Table 15: State-wise distribution of Peripheral Institutes / Units

S.N.	Name of the State	Name of the Institutes / Units
1.	Tamil Nadu	Siddha Central Research Institute, Chennai
		Siddha Clinical Research Unit, Palayamkottai
		Siddha Medicinal Plants Garden, Mettur
2.	Kerala	Siddha Regional Research Institute, Thiruvananthapuram
3.	Puducherry (U.T.)	Siddha Regional Research Institute, Puducherry
4.	New Delhi (U.T.)	Siddha Clinical Research Unit, New Delhi
5.	Karnataka	Siddha Clinical Research Unit, Bengaluru
6.	Andhra Pradesh	Siddha Clinical Research Unit, Tirupati

Co-located Centres of CCRS

- Siddha wing at AYUSH Wellness Clinic at Rashtrapati Bhavan, New Delhi-caters to the medical needs of the President, officials of President's Secretariat and residents of the President's Estate.
- A Siddha OP wing at All India Institute of Ayurveda at Saritha Vihar, New Delhi-provides Health care services to the general public.
- Apart from this, Siddha Medical Services Unit, Health Centre at Pondicherry University also provides Siddha treatment for the staff and students of the University.

Diagram 1: Organizational set up of Central Council for Research in Siddha

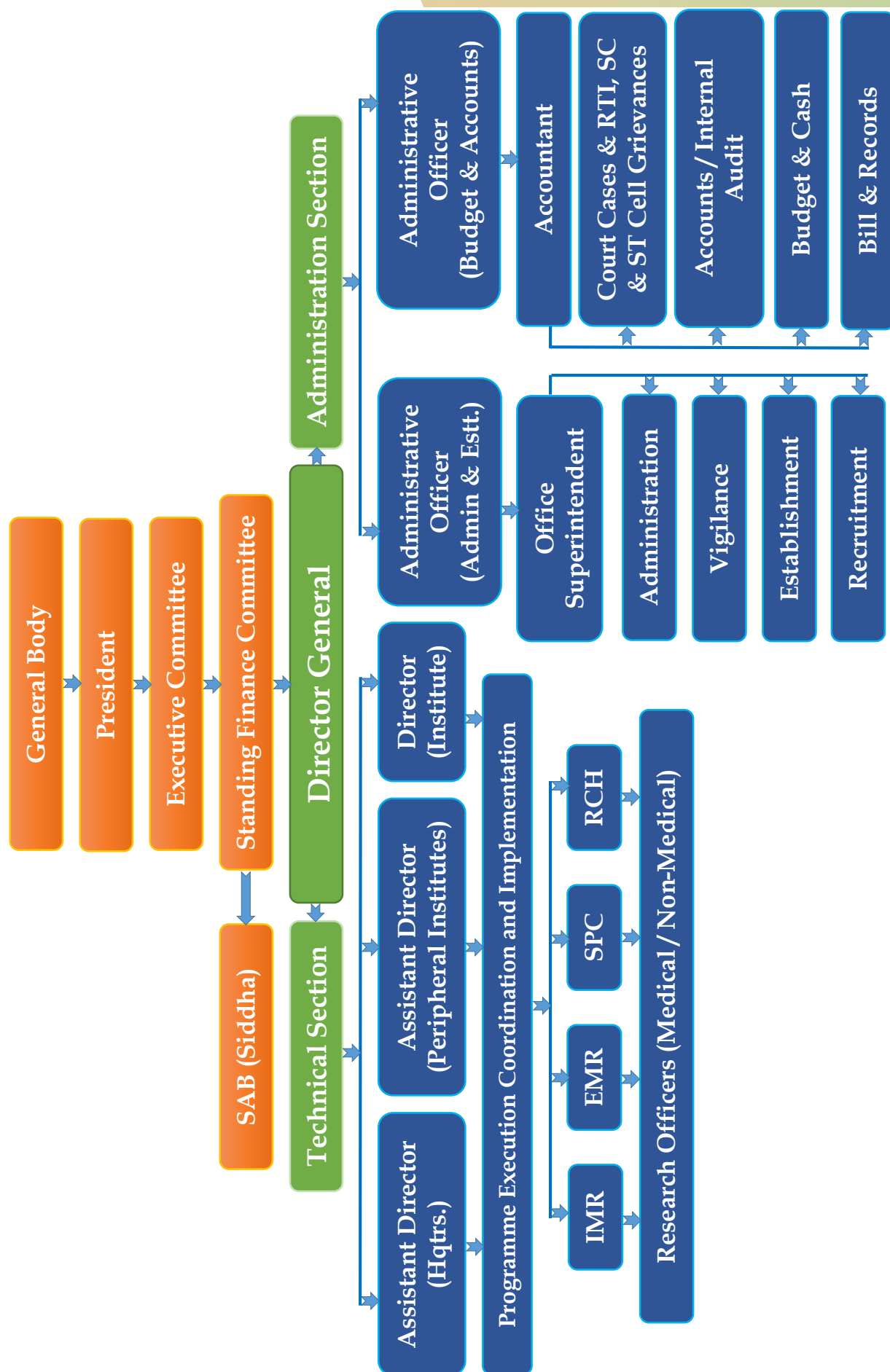
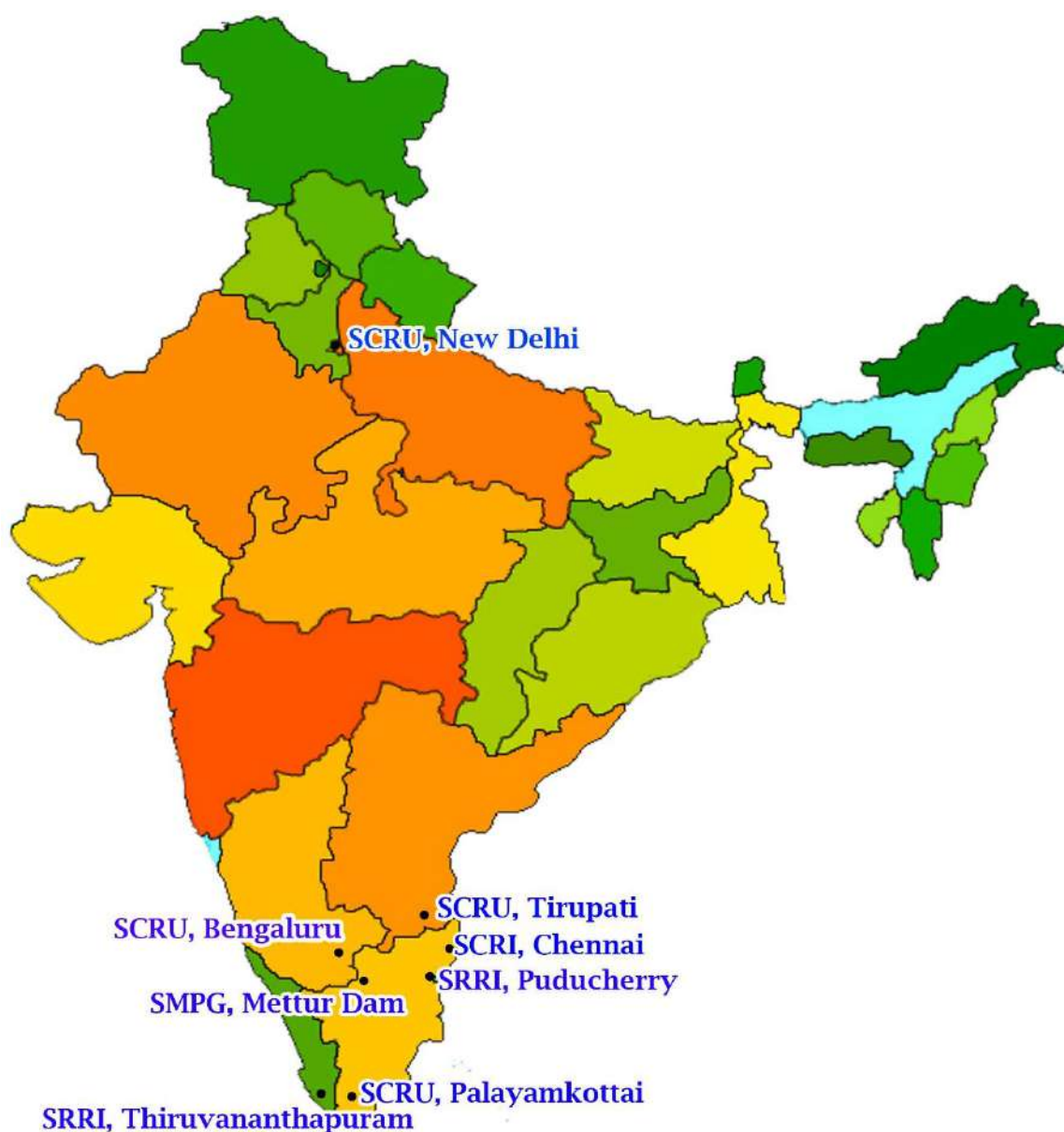


Diagram 2: CCRS Network



2.4. SIRO Recognition

Central Council for Research in Siddha has been recognized as a scientific and industrial research organization by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India with effect from 21.08.2014.

2.5. Budget

Table 16: Budget Provision at a glance

Scheme	B.E. 2019-2020 (in lakhs)	Funds released in 2019-2020 (in lakhs)	Actual expenditure 2019-2020 (in lakhs)
GIA (Salary & General Area)	3650.00	3300.00	3196.16
Total	3650.00	3300.00	3196.16

Table 17: Head-wise Actual Expenditure

S.N.	Particulars	Total Expenditure 2019-2020 (in lakhs)	
		GIA	Total
1.	Pay & Allowances	1608.26	1608.26
2.	Pension	444.45	444.45
3.	Payment of Gratuity -DCRG	72.24	72.24
4.	Payment of commutation	11.32	11.32
5.	EL Encashment	12.30	12.30
6.	NPS (Employer)	196.77	196.77
7.	Leave travel Concession (LTC)	10.17	10.17
8.	Travelling allowances	18.08	18.08
9.	Office expenses- Contingencies	37.76	37.76
10.	Other Administrative exp.	25.86	25.86
11.	Research Activities	249.31	249.31
12.	Seminar, Workshop & AROGYA	11.11	11.11
13.	Advertisement and Publicity	0.56	0.56
14.	Machinery & Equipments	0.93	0.93
15.	Capital works (Major Works)	480.29	480.29
16.	Minor works	16.75	16.75
	Total	3196.16	3196.16

Table 18: Centre-wise Actual Expenditure

Particulars	Total Expenditure for 2019-2020 (in lakhs)	
	GIA	Total
De - Centralized Units		
SCRI, Chennai	861.49	861.49
SRRI, Puducherry	265.34	265.34
SRRI, Thiruvananthapuram	582.64	582.64
SMPG, Mettur Dam	132.73	132.73
SCRI, Palayamkottai	46.75	46.75
SCRU, New Delhi	61.82	61.82
SCRU, Bengaluru	33.97	33.97
SCRU, Tirupati	30.45	30.45
Centralized Units		
CCRS, Headquarters	1180.97	1180.97
Grand Total	3196.16	3196.16

3. Technical Report

3.1. Centre-wise Activities

The involvement of peripheral Institutes / Units of the Council in the research activities in broad areas viz. Clinical Research, Drug Research, Medicine Plants Research, Literary Research, etc.

Siddha Central Research Institute (SCRI), Chennai is identified as a potential Centre of Excellence for clinical research. This Institute was established during the year 1971 and located in the campus of Anna Government Hospital of Indian systems of Medicine and Homoeopathy at Arumbakkam, Chennai. SCRI, Chennai is having all the basic facilities for clinical research, drug research and literary research. In the department of literary research, palm leaf manuscripts and rare Siddha books collection, preservation, annotation, cataloguing, transcription and publications are carried out periodically. The department of clinical research carries the clinical trials with 50 bedded hospital facilities. The department of Biochemistry and Pathology laboratories also supports the clinical research. Pharmacovigilance cell functions effectively for the betterment of the society and the system. The department of Pharmacognosy extends assistance in identification of herbal drugs, Siddha botanical standardization and Siddha Pharmacopoeia works. Standardization of trial drugs, single drugs and Siddha compound formulations are carried out in the department of Chemistry. Department of Pharmacology carries out the biological evaluation, safety and toxicity studies.

Allocation of Research Projects / Activities

- Clinical Research
- Drug Standardization
- Literary Research & Documentation Programme
- Fundamental Research
- National Pharmaco-vigilance Programme for Ayurveda, Siddha and Unani (ASU) Drugs
- Health care services through Out-Patient Departments (OPDs) and In-Patient Department (IPD)
- Specialty Clinics
 - Non-Communicable Diseases (NCD)
 - Geriatric Health Care
 - Flu-like Illness
 - Varmam, Thokkanam and Bone setting
 - Siddha Paediatric Varmam
 - Reproductive and Child Health Care
 - Siddha Yogam

- Pharmacy
- Intra-mural Research projects
- Swasthya Rakshan Programme (SRP)
- Miscellaneous activities

Siddha Regional Research Institute (SRRI), Puducherry was established on 22nd August, 1979. This institute started functioning in its own premises at Kuyavarpalayam since 2003 with a well-maintained campus and pleasing herbal garden with more than 150 medicinal plants. This institute has enough infrastructure with various departments -- Out-Patient Department, In-Patient Department, Varmam clinic, dispensary, clinical pathology laboratory and a library. An Inpatient Department with 25 beds is being utilized for various clinical research projects. Since its inception, this institute is engaged in clinical research on Siddha formulations for various ailments.

Allocation of Research Projects / Activities

- Clinical Research
- National Pharmaco - vigilance Programme for Ayurveda, Siddha and Unani (ASU) Drugs
- Health care services through Out-Patient Departments (OPDs)
- Specialty Clinics
 - Non-Communicable Diseases (NCD)
 - Geriatric Health Care
 - Flu-like Illness
 - Varmam and Thokkanam
- Intra-Mural Research projects
- Swasthya Rakshan Programme (SRP)
- Miscellaneous activities

Siddha Regional Research Institute (SRRI), Thiruvananthapuram, Kerala has been established with the amalgamation of Siddha Clinical Research Unit and Drug Research Unit in Poojappura, Thiruvananthapuram in November 2010, after the bifurcation of Central Council for Research in Ayurveda and Siddha (CCRAS) into Council for Research in Siddha (CCRS) and Central Council for Research in Ayurvedic Science (CCRAS). This institute caters to the health needs of general public by providing service free of cost and performing various research activities in the clinical sector. In drug research, single and compound formulations are being standardized.

Allocation of Research Projects / Activities

- Clinical Research
- Drug Standardization

- National Pharmacovigilance Programme for Ayurveda, Siddha and Unani (ASU) Drugs
- Health care services through Out-Patient Departments (OPDs)
- Specialty Clinics
 - Non-Communicable Diseases (NCD)
 - Geriatric Health Care
 - Flu-like Illness
 - Varmam & External Therapies
- Intra-Mural Research projects
- Swasthya Rakshan Programme (SRP)
- Miscellaneous activities

Siddha Clinical Research Unit (SCRU), Palayamkottai was established on 6th February 1980 in the premises of Government Siddha Medical College campus, Palayamkottai. The Survey of Medicinal Plants Unit (SMPU) located there, to its credit, has surveyed around 300 forest areas, which include both Eastern and Western Ghats of Tamil Nadu. A Herbarium hall with 9000 Herbarium sheets covering 1986 individual species and a Museum with 1000 crude drug materials are maintained. General OPD, Varmam OPD and External therapies are provided at Siddha Clinical Research Unit, Palayamkottai.

Allocation of Research Projects / Activities

- Clinical Research
- National Pharmacovigilance Programme for Ayurveda, Siddha and Unani (ASU) Drugs
- Health care services through Out-Patient Department.
- Specialty Clinics
 - Non-Communicable Diseases (NCD)
 - Geriatric Health Care
- Intra-mural Research projects
- Swasthya Rakshan Programme (SRP)
- Miscellaneous activities

The Survey of Medicinal Plants Unit (SMPU) – Siddha and Siddha Medicinal Plants Garden (SMPG) is located at Mettur Dam, Salem, Tamil Nadu on the 18.14 acres of leased land from the Govt. of Tamil Nadu. Survey of Medicinal Plants Unit – Siddha have so far undertaken 332 Medico Ethno Botanical survey in different parts of Tamil Nadu and recorded 10054 field collections. The unit has documented 7700 herbarium specimens covering 1836 species of medicinal plants with special reference to Siddha and Ayurveda in Tamil Nadu. The objectives of survey of medicinal plants unit is to study the medicinal plants wealth of Tamilnadu by undertaking Medico Ethno Botanical survey tours, collection and documentation of

medicinal plants for herbarium, raw drugs/plant materials for museum, plant materials/raw drugs for effective drug supply, identification and authentication of medicinal plants, documentation of medico ethno botanical claims. The Siddha Medicinal Plants Garden has also developed an arboretum and a poly green house. The garden supplies raw drugs to meet the partial requirement of SCRI Pharmacy and SPC related works. Farming activities and maintenance of garden is taken care by this unit.

Allocation of Research Projects / Activities

- Medico-Ethno-Botanical Survey
- Cultivation of Medicinal Plants
- Maintenance and Development of medicinal plants garden.
- Intra-mural Research projects
- Swasthya Rakshan Programme (SRP)
- Miscellaneous activities

Siddha Clinical Research Unit (SCRU), New Delhi started its function on 29th February 2016 in the campus of Ayurveda & Unani Tibbia College, Karol Bagh, New Delhi, in the space provided by the Department of AYUSH, Govt. of NCT of Delhi. Due to some administrative circumstances, the unit was shifted to Safdarjung Hospital Campus and started its regular functions from 9th September, 2019. At present, Out-patient Department (General and Varmam OPD) services, geriatric OPD and clinical research activities are carried out in the unit. The unit is also running an integrated AYUSH OPD at All India Institute of Ayurveda (AIIA), Sarita Vihar, New Delhi on every Fridays and Saturdays. Under the Swasthya Rakshan Programme of Ministry of AYUSH, SCRUND is conducting Swasthya Rakshan OPDs on every Monday in the premises of Ramakrishna Mission Ashram, New Delhi and on every first Sunday in Nanakpura Malayalee Welfare Forum, Moti Bagh, New Delhi.

Allocation of Research Projects / Activities

- Clinical Research
- National Pharmaco-vigilance Programme for Ayurveda, Siddha and Unani (ASU) Drugs
- Health care services through Out-Patient Department
- Specialty Clinics
 - Non-Communicable Diseases (NCD)
 - Geriatric Health Care
- Intra-mural Research projects
- Swasthya Rakshan Programme (SRP)
- Miscellaneous activities

Siddha Clinical Research Unit (SCRU), Bengaluru started functioning at the campus of Govt. Sri Jayachamarajendra Ayurveda Hospital, Dhanvantri Road, Bengaluru since 25th May, 2017. This unit provides medical aid for various diseases through Siddha system of Medicine as an adjunct to research pursuits for patients visiting OPD. Specialty treatments like Varmam and Thokkanam therapies for musculo-skeletal and neurological disorders are available for patients.

Allocation of Research Projects / Activities

- Clinical Research
- Health care services through Out-Patient Department (OPD)
- Specialty Clinics
 - Non-Communicable Diseases (NCD)
 - Varmam & Thokkanam
- Intra-mural Research projects
- Swasthya Rakshan Programme
- Miscellaneous activities

Siddha Clinical Research Unit (SCRU), Tirupati was established in SVIMS campus at Tirupati, Andhra Pradesh on 16th January, 2019. The unit conducts clinical research and provide medical aid for various diseases through Siddha system of Medicine as an adjunct to integrative research pursuits. This unit is providing medical care to the patient seeking Siddha Medicine through its Out-Patient Department.

Allocation of Research Projects / Activities

- Clinical Research
- Health care services through Out-Patient Department (OPD)
- Specialty Clinics
 - Non-Communicable Diseases (NCD)
 - Geriatric Health Care
 - Flu-like Illness
 - Varmam & Thokkanam
- Intra-mural Research projects
- Miscellaneous activities

3.2. Medicinal Plants Research

3.2.1. Medico-Ethno-Botanical Survey

Medico Ethno Botanical Survey

Five Survey and Collection tours were undertaken in Poolampatti and Sitthur, Neethipuram, Kolathur, Pannavadi and Navapatti for the collection and documentation of plants used for various medicines in which 114 plant species were identified and recorded.

Maintenance and Development of Siddha Medicinal Plants Garden

- Model garden I contains 236 plants species and 42 climbers.
- Model garden II with 270 plant species.
- A petaloid pond with 9 aquatic plants and 13 marshy plants in between the petals.
- Arboretum- Block-A with 192 plants covering 65 species.
- Arboretum- Block-B with 198 plants covering 62 species.
- Arboretum- Block-E, Field-I with 75 plants covering 17 species.
- Arboretum- Block-E, Field-II with 78 plants covering 12 species.
- Hillock with 78 Trees.
- Poly green house with 489 live potted plants covering 359 + species.
- New block has been created by planted ca 15 numbers the fruits yielding trees used in Siddha formulations.

Cultivation

- Major Cultivation of 10 medicinal plants and trial cultivation of 5 medicinal plants.
- Trial cultivation of 10 traditional cereals and spices and native vegetables of this area cultivated to develop seed bank.

Project: National Medicinal Plants Board (NMPB):

Establishment of medicinal plants nursery

Project sanctioned to SMPG vide NMPB Letter no. NMPB/IFD/GIA/NR/PL/2018-19/110 dated 12/11/2018.

File & Project No. Z. 18017/187/Nur/TN-01/2018-19-NMPB (Project No. Nur/TN-01/2019)

Status: Work is progressing as scheduled. State agro Engineering Services, Salem is having constructed Shade net house and Mist chamber construction is under progress

Table 19: Raw drugs collected for supply

S.N.	Type of materials supplied	Quantity supplied
1.	Fresh Drug	830.48 Kgs
2.	Dry Drug	214.1 Kgs

Total number of medicinal plants photographed

Coloured Photo print : 267 numbers

List of plant saplings / stem cuttings collected

One hundred and Ninety Five plant saplings/seedlings covering 46 species were collected/added during the year.

Table 20: Number of different plant parts collected

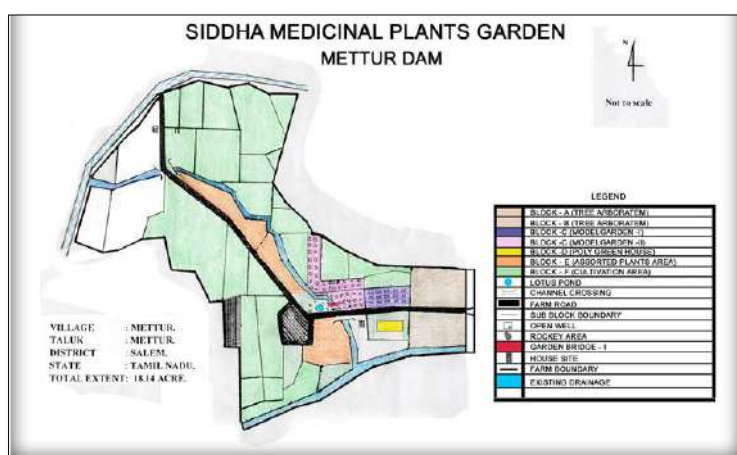
S.N.	Types	Collected Numbers
1.	Saplings	112
2.	Seedlings	20
3.	Cuttings	32
4.	Rhizomes	3
5.	Tubers	6
6.	Seeds	27

For Museum

Two Hundred and Three dried raw drugs collected from garden as well as from survey tours are processed and preserved in the Museum.

Folklore claims

During the period under report, as many as 25 folklore claims have been recorded and documented for various ailments.

Diagram 3: Layout of the Siddha Medicinal Plants Garden, Mettur Dam**3.2.2. Intra Mural Research Projects****I. Digitization and Compilation of Herbarium and Folklore Claims at Survey of Medicinal Plants Unit- Siddha, Palayamkottai****1. Objectives:****Primary:**

- To develop Centralised Repository of Digital Medicinal plants herbarium of CCRS

Secondary:

- Cataloguing of SMPG (SMPU-S) Herbarium
- Compilation of Medico ethno botanical claims recorded
- Up keeping of the Herbarium and Museum, SMPG (SMPU-S) at Palayamkottai

2.	Duration of Study	:	3 years
3.	Nature of Document / Publication	:	Books, Website
4.	Participating centre	:	SMPG, Mettur Dam
5.	PI	:	Dr. M. Padma Sorna Subramanian
6.	Date of Initiation	:	13.01.2016
7.	Date of Completion	:	12.01.2019
8.	Current status	:	Project Completed
9.	Summary of work done: A total of 7585 mounted herbarium were refreshed, documented and included in the centralized website. They were optimized and compressed for easy access. The raw drug Museum covering 738 samples of plants, animals and mineral origin were also revived and included in the website. Three books were printed and released.		

II. Medico Ethno Botanical Study of Palamalai - Salem District

1.	Objectives: Primary: To study the medicinal flora. Secondary : To record and document the medico ethno botanical lore's of tribal community living in the Palamalai		
2.	Duration of Study	:	3 years
3.	Nature of Document / Publication	:	Book
4.	Participating centre	:	SMPG, Mettur Dam
5.	PI	:	Dr. M. Padma Sorna Subramanian
6.	Date of Initiation	:	01.08.2016
7.	Current status	:	Project has been completed and final report of the project has been submitted to the Council for vetting.
8.	Summary of work done: <ul style="list-style-type: none"> • Three Survey and collection tours covering 4 days with 154 field collections. • 609 specimens mounted on herbarium sheets • 72 raw drug samples added to the museum of SMPG and 104 saplings are added to SMPG. • 104 folklore claims have been recorded • 2 research articles published in peer reviewed journals 		

III. A Survey on the Ethno-medicinally important plants for common ailments in Tiruppur district, Tamil Nadu.

1.	Objectives: <ul style="list-style-type: none"> • Survey and collection of ethno-medicinally important plants from the District Tiruppur, Tamil Nadu • Exploration and document of the folk-claim and traditional medicinal uses of plants from Tiruppur District, Tamil Nadu 		
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2.	Duration of Project	:	3 years
3.	Nature of Document/ Publicaton	:	Book
4.	Participating centre	:	SMPG, Mettur Dam
5.	PI		Dr. P. Radha
6.	Date of Initiation	:	29.11.2017
7.	Current status	:	Ongoing project
8.	Summary of work done: Three field explorations were carried out in the Tiruppur District. <ul style="list-style-type: none">• No. of villages surveyed: 148• No. of Informants participated in the survey: 171• No. of folklores documented: ca. 1000• No. of raw drug samples collected: 60 samples• No. of herbarium specimens mounted: ca. 400• No. of saplings introduced in SMPG: 26 species• No. of Research articles published: 2		
IV. Development of DNA Based Markers for some Substitute / Adulterant / Controversial Siddha Medicinal Plants			
1.	Objectives: <ul style="list-style-type: none">• Collection of substitute and adulterant Siddha drugs from natural habitats and its market samples.• Isolation of genomic DNA followed by development of DNA based markers.• Preperation of atlas of DNA fingerprints		
2.	Duration of Project	:	3 years
3.	Nature of Document/ Publicaton	:	Publication as paper / Monograph
4.	Participating centre	:	SCRI, Chennai
5.	PI		Dr. K.N. Sunil Kumar
6.	Date of Initiation	:	19.03.2020
7.	Current status	:	Ongoing project
8.	Outcome: Expected efficacy of authentic drugs cannot be expected from wrong botanical sources or deliberate substitution with low cost herbs. The main hindrances for global acceptance of traditional products are well documented evidences for quality, safety and efficacy. Drug authentication is very important to eliminate fraudulent/spurious adulterations and substitutions of official drugs with similar looking/cheap drugs. Therefore some high end authentication tools is the need of the hour for Pharmacognosists. The DNA based markers would be an important step for universal acceptance of Siddha drugs as DNA Profile is also one of the key objectives of proposed Raw Drug Repositories of NMPB, Ministry of AYUSH.		

3.2.3. Cultivation, Maintenance and Development of Medicinal Plants

Siddha Medicinal Plants Garden

1. Year of commencement of the project : 1993
2. Details of land under cultivation : Siddha Medicinal Plants Garden, Mettur Dam
 - a) Ownership of the land on lease basis : Siddha Central Research Institute, Arumbakkam, Chennai 600 106, under control of CCRS, Chennai
- Whether State or under Central Government : On lease from PWD, Mettur Dam, Govt. of Tamil Nadu
- b) Total area of the land allotted for cultivation project : 18.14 acres

Table 21: Development activities

S. N.	Blocks	Activities / Developments	Plants and Species
1.	Block A (1.73 acres)	Arboretum	192 plants covering 65 species
2.	Block B (1.20 acres)	Arboretum	198 plants covering 62 species
3.	Block C (0.29 acres)	Model garden I	236 species + 42 Climbers
4.	Block D (0.13 acres)	Polygreen House	489 live potted plants covering 359 species
5.	Block E (0.13 acres)		
	Field - I (705 Sq.Mt.)	Arboretum	95 plants covering 51 species
	Field - II (1.29 acres)	Arboretum	75 plants covering 17 species
	Hillock & Avenue (0.75 acre)	Arboretum	78 plants covering 12 species

Table 22: Cultivation activities

S. N.	Blocks		Botanical Name	Tamil Name
1.	Block D	0.15 acres	Cultivation of <i>Piper longum</i> L. in Poly greenhouse.	Thippili
2.	Block E, F		Cultivation <i>Cynodon dactylon</i> Pers	Arugan
3.	Block G	0.17 acres	Cultivation of <i>Andrographis paniculata</i> Nees.	Nilavembu
		0.8 acres	Cultivation of <i>Ocimum basilicum</i> L. var. <i>purpurascens</i> Benth.	Karunthulasi
4.	Block G&J	0.23 acres	Cultivation of <i>Psoralea corylifolia</i> L.	Karbogarisi
5.	Block I	1.08 acres	Cultivation of <i>Cassia senna</i> L.	Nilavarai
		0.40 acres	Cultivation of <i>Indigofera tinctoria</i> L.	Avuri
		0.09 acres	Cultivation of <i>Aloe vera</i> L.	Kumari
6.	Block J	0.80 acres	Cultivation of <i>Withania somnifera</i> Dunal	Amukkara
7.	Block H	0.44 acres	Cultivation of <i>Vetiveria zizanoides</i> (L.) Nash.	Vettiver

Trial cultivation

Trial cultivation of *Adhatoda Zeylanica* medic. (Adhatodai), cultivation of *Wrightia tinctoria* R.Br. (Vetpalai), *Vitex negundo* L. (Nochchi), *Nelumbo nucifera* Gaertn. (Thamarai) and *Alpinia calcarata* Rosc. (Chitrarathai).

3.2.4. Management and development of Polygreen house

A polygreen house having 500 Sq.mt. accommodates around 489 pots having 359 species including 37 RET species are arranged in racks. Nursery and cultivation of *Piper longum* L. (Thippili) *Coleus vettiveroides* K.C. Jacob (Vilamitcham) was also carried out in the Polygreen house. 125 exhibiton pots were donated to CCRS, Chennai on the occasion of 3rd Siddha Day Celebration, 13th Jan 2020 and same were replaced with new pots.

Seed Bank

A total number of 72 seeds and fruits of the plants grown in the garden were collected and stored for future use. Collected seeds were utilized for the purpose of raising seedlings in the nursery and also for cultivation purpose. In addition it will also serve the purpose of seed bank in future.

RET species conserved in the garden

It is significant that 37 species belonging to Rare Endangered and Threatened (RET) status are conserved in the Siddha Medicinal Plants Garden at Mettur dam.

3.2.5. Management and Development of Model Herbal Garden

Management and development of Model Herbal Garden-Phase I

A model herbal garden with 1150 sq. mt. is maintained with 236 individual species. On the periphery of the garden, 42 climbers also grown over the steel arches.

Management and development of Model Herbal Garden-Phase II

A model herbal garden Phase II along with construction of pond with a fountain to grow aquatic plants has been sanctioned through National Medicinal Plants Board (NMPB) project.

A model garden Phase – II had been established with an area 1 cent of land and 151 pits were dug out and each pit was fixed with cement rings having 3 feet breadth. Sprinkler type of irrigation is installed in Phase A and B of the model garden Phase-II and the rest of the plants are grown under manual irrigation. The model garden Phase II is connected with the petaloid pond with natural stoned landscape bridge with steel made bamboo handles. Along the channel wet plants like Neermel neruppu, Karisalai, Sivakaranthai, Canakkirai, Vallarai, Nirbrahmi, Poduthalai, Neer arai, Sirupulladi, Palvali poondu, Neermulli, Kalvazhai, Vettiver, Thazhai, Nanal, Aarai etc. are also planted.

Altogether, as many as 277 plants including the existing trees are grown around the petaloid pond with fountain along with 5 feet Agasthiyar statue in sitting position at the centre.

NMPB Project:

Construction of pond with a fountain to grow aquatic plants along with the establishment of model herbal garden - (Phase II)

- Block C :** 532 sq. mt. : Petaloid pond along with Agasthiyar statue with fountain
 304 sq. mt. : Model garden-Phase II (A) 49 species
Block F : 583 sq. mt. : Model garden-Phase II (B) 54 species
 465 sq. mt. : Model garden-Phase II (C) 40 species

The Petaloid pond which was constructed with the fund received from NMPB is grown with floating aquatics like Thamarai (White, Pink) (*Nelumbo nucifera* Gaertn), Alli (White, Red) (*Nymphaea pubescens* Willd), Chevambal, (*Nymphaea nouchali* Burm.f.), Neythal (*Nymphoides hydrophylla* (Lour) Ktze.), and Akaya thamarai (*Pistia stratiotes* Linn.) etc. The spaces in between the petaloid tubs are reclaimed with manure mixed red soil and planted with wet plants like Neer mel neruppu (*Ammania baccifera* L.) Karisalai (*Eclipta prostrata* L.) Sivakaranthai (*Sphreanthus amaranthoides* L.), Canakkirai (*Basilicum polystachyon* L.) Moench, Vallarai (*Centella asiatica* Urban.), Nirbrahmi (*Bacopa monnieri* Penn.), Poduthalai (*Phyla nodiflora* Greene), Neer arai (*Marsilea quadrifida* L.), Sirupulladi (*Desmodium triflorum* L.) DC. and Palvali poondu (*Spilanthes calva* DC.) etc.

3.2.6. Pharmacognosy

The Department of Pharmacognosy functioning in SCRI, Chennai and SRRI, Thiruvananthapuram assists in identification of herbal drug and to carry out Siddha Botanical Standardization and Siddha Pharmacopoeia works.

Table 23: Identification / Microscopical study of Siddha Formulations / Single drugs

S.N.	Activities of Department of Pharmacognosy	Total
1.	Plants collected for herbarium	12
2.	Identification/authentication (A), microscopic (M) and powder microscopic (P) studies of plants / raw drugs / mineral/ metals	107
3.	Powder microscopy illustration of drugs for Siddha pharmacopoeia	14
4.	Collection and supply of plant materials	27
5.	Single drugs characterized for powder microscopic features	15
6.	Raw drug samples tested in SCRI Pharmacy	27
7.	Anatomical studies	3
8.	Powder microscopy (Single drugs)	11

Herbarium and Museum

Thirty Eight herbarium and Seven Museum Specimens were added during the period under reporting year.

3.3. Drug Standardization Research

3.3.1. Drug Standardization at SCRI, Chennai & SRRI, Thiruvananthapuram

- Standardization of Clinical Trial Drugs
- Identity, purity, strength and TLC of Siddha Pharmacopoeial single drugs and compound formulations
- Studies on adulterants / substitutes through TLC
- Extraction, isolation and characterisation of chemical constituents / marker compounds from the medicinal plants used in the Siddha system.
- Providing facilities and guidance to the Ph.D scholars, B.Tech., M.Sc., B.Sc. students for their research programmes / project works.
- Supply of plant extracts to the other research institutes / organizations.
- Adopting the modern sophisticated techniques and methods for developing the quality control aspects to propagate the activities / strength of Central Council for Research in Siddha and Siddha system across the world.
- HPTLC photo documentation and fingerprinting profile of the extracts of single drugs and compound formulations.

Table 24: Standardization of Single Drugs / Compound Formulations

S. N.	Activities of Department of Chemistry	Total
1.	Single Drugs analyzed	15
2.	Compound Formulation analyzed	5
3.	Plants analyzed for TLC photo documentation for SPC	20
4.	Siddha drugs Analyzed for Physico-chemical Parameters on Payment basis	16
5.	Siddha drugs Analyzed for HPTLC Finger Print Analysis on Payment basis	9
6.	Determination of Physico-Chemical Parameters	21
7.	HPTLC photo documentation and the fingerprinting profile of single drugs	44
8.	Determination of physico-chemical parameters of compound formulations	4
9.	HPTLC photodocumentation and fingerprinting of compound formulations	5
10.	Shelf-life studies of compound formulations	3

3.3.2. Animal and Mineral origin Drug Research Laboratory (AMDRL)

Animal and Mineral origin Drug Research Laboratory (AMDRL) is a unique, separate division under Department of Chemistry functioning in the premises of Siddha Central Research Institute, Chennai with effect from 24th May 2018 to develop Siddha Pharmacopoeia (Metals and Minerals). This division houses sophisticated analytical facilities such Liquid Chromatography-Mass Spectrometry (Triple Quadrupole LC-MS), Inductively Coupled Plasma-Optical Emission Spectroscopy (ICP-OES), UV-Visible Spectroscopy including solid-state Diffusion Reflectance Spectroscopy (DRS) and Closed-Vessel microwave digester procured under CCRS-IMR scheme at an approximate cost of Rs.2.00 crores.

Objectives

- The main objective of this division is to develop Siddha Pharmacopoeia for Metal and Mineral origin drugs including herbo-minerals in Siddha system of medicine and to develop animal origin drugs and their related research and development.
- Research studies of around 220 minerals including metals, salts, mercurial, arsenicals, marine origin conch shell etc., are being used in Siddha medicine and it is emphasized to use these minerals after series of processes stated in Siddha literatures.
- "Integrated standardization" to develop "Drug Master File (DMF), including characterization of raw materials, process optimizations, intermediates and finished dosage forms.
- Analyses of external samples from various sources such as students/Research scholars/Faculties/Industries/Individuals etc., which involves revenue generation and consultation services.
- To develop specification limits for Class-I heavy metals such as Mercury (Hg), Arsenic (As), Cadmium (Cd) and Lead (Pb) and trace elements at par with international standards.

External Project

One PCIMH project was allocated in EoI project mode and it is in progress.

3.3.3. Intra Mural Research Projects

I. Scientific validation of <i>Serankottai</i> (<i>Semecarpus anacardium</i>) before and after purification in Siddha system of medicine	
1.	Objectives: Primary: Scientific validation of Serankottai before and after its purification process Secondary: To document the purity, quality and safety of the purified nuts of <i>Semecarpus anacardium</i>
2.	Duration of Project 1 year
3.	Participating centre SCRI, Chennai
4.	PI Dr. L. Juliet
5.	Date of initiation 28.12.2018
6.	Current status Project Completed.
7.	Outcome: Technical report submitted to CCRS, Chennai. One paper entitled "Importance of Sutthi Muraigal (Detoxification Process) in Siddha System of Medicine for the Schedule E -Poisonous Drugs" communicated to the Indian Journal of Traditional Knowledge (IJTK).

II. Isolation of chemical marker from selected plants used in Reproductive and child Health

1.	Objectives: Primary: Isolation of Chemical marker from selected medicinal plants Secondary: To use these isolated chemical markers for estimation in Siddha formulation used for Reproductive and Child Health
2.	Duration of the Project 3 years
3.	Participating centre SCRI, Chennai
4.	PI Dr. R. Shakila
5.	Date of initiation 17.03.2017
6.	Current status Ongoing project
7.	Status: Compounds have been isolated from <i>Cuminum cyminum</i> , <i>Barleria prionitis</i> , <i>Solanum nigrum</i> , <i>Syzygium aromaticum</i> , <i>Tribulus terrestris</i> , <i>Alpinia galangal</i> and <i>Celestrus paniculatus</i> . Characterization of the compounds isolated from <i>Barleria prionitis</i> , <i>Solanum nigrum</i> , <i>Curculigo orchoides</i> , <i>Cassia fistula</i> are in progress. One research article and one review paper has been communicated.

III. Analysis of inorganic composition of selected plants used in Siddha system

1.	Objectives: Primary: To analyse the composition of the inorganic contents in selected plants Secondary: To suggest an inorganic mixture with definite composition to use in the Siddha formulations in which the analysed plants are used in the form of ash.
2.	Duration of the Project 3 years
3.	Participating centre SCRI, Chennai
4.	PI Dr. R. Shakila
5.	Date of initiation 17.03.2017
6.	Current status Ongoing project
7.	Status: XRF (4 samples), FESEM-EDAX (3 samples), ICP-OES (all 11 samples), XPS (4 samples) were completed. Seven samples have been sent for XPS analysis. PXRD for all the samples has to be analysed for all the samples. Codal formalities for the Purchase of PXRD through e-procurement has been completed and LC has been opened. Awaiting for the shipment of the instrument and installation. One research article has been communicated for publication.

IV. Qualitative and Quantitative Analysis of Lead in 'Lead containing Plants' – A Scientific validation of Siddha claim

1.	Objectives: To validate scientifically the presence of Lead in the 'Lead containing plants' mentioned in the Siddha classical Text and to develop pharmacopoeial standards of these medicinal plants on scientific lines
2.	Duration of the Project 3 years
3.	Participating centre SRRI, Thiruvananthapuram
4.	PI Smt. Anitha John
5.	Date of initiation 17.07.2017
6.	Current status Ongoing project
7.	Status: Three accessions of the plant materials from different regions were taken for analysis. Physico-chemical and HPTLC analysis of 12 plant materials, Macroscopic, Microscopic & Powder microscopic analysis of 21 plant materials were completed and two Research papers have been published in peer reviewed journals.

V. Qualitative and quantitative analysis of Chembu (Copper) in "Chembu containing plants" - A scientific Siddha claim

1.	Objectives: To scientifically validate the presence of Chembu (copper) in the 'Chembu containing plants' mentioned in the Siddha classical Texts.
2.	Duration of the Project 3 years
3.	Participating centre SCRI, Chennai
4.	PI Dr. K. Parthasarathy
5.	Date of initiation 03.04.2017
6.	Current status Ongoing project
7.	Status: The Qualitative and Quantitative analysis of Chembu (copper) in four plants were completed.

VI. Untargeted approach to the geochemical characterization of Hypothecated Muppu (Marine sediments collected from Bay of Bengal at Rameswaram and white powdery salts collected from Kovanur and Siddha malli)

1.	Objectives: To characterize two marine sediments and one leachable salt (Brahma kal, Vishnu kal and Pooneru respectively as hypothesized by Siddha literature) chemically by using various qualitative and quantitative experiments and by using modern sophisticated analytical methodologies
2.	Duration of the Project 2 years. Extended for another 6 months
3.	Participating centres SCRI, Chennai
4.	PI Dr. K. Parthasarathy
5.	Date of initiation 03.04.2017

6.	Current status	Project has been completed and final report of the project is yet to be submitted to the Council for vetting.
7.	Status: The extension of the project was initiated on 8 th July, 2019 after getting approval from SAB and the remaining works are completed. Preparation of Brama Kal Chunnam, Vishnu Kal Chunnam and Pooneru Chunnam has been completed. Turusu chunnam has been characterized and is in the manuscript preparation process. Preparation of Muppu Chunnam has been completed as the final output of the project. One research article published. The patent for the preparation of Pooneeru by a novel process have been published by Intellectual Property Rights, India.	
VII. Metabolomic profiling and identification of principle components from herbals used in Siddha system for Cognitive disorders by using LC-MS/MS and multivariate stastical analysis.		
1.	Objectives: To develop molecular finger prints used in Siddha system for cognitive disorders using Liquid Chromatography coupled with Mass Spectrometry and identification of “Principle Components (PCs) through multivariate statistical analysis (PCA & OPLS-DA)”	
2.	Duration of the Project	3 years
3.	Participating centre	SCRI, Chennai
4.	PI	Dr. K. Parthasarathy
5.	Date of initiation	23.07.2018
6.	Current status	Ongoing project
7.	Status: The integrative work flow towards the development of identification principle components have been achieved and 17 principle components have been identified and the plants studied are <i>Bacopa monnieri</i> , <i>Madhuca longifolia</i> , <i>Centella asiatica</i> , <i>Citrus aurantifolia</i> , <i>Tinospora sinensis</i> and <i>Lawsonia imermis</i> . Amongst these, structurally similar 14 principle components are critical in regulating cognitive functions in human brain as per Siddha literature.	
VIII. Sarakku vaippu of a poly herbal formulation with Abini-like properties by Siddha methodology of Konganavar		
1.	Objectives: Primary: To synthesis Abini as Vaippu Sarakku as per ancient Siddha literature of Konganavar Secondary: <ul style="list-style-type: none">Standardisation of Vaippu Sarakku of AbiniTo determine quality, purity, safety of Vaippu Sarakku of Abini by physical, chemical and analytical methods.	
2.	Duration of Project	1 year 6 months

3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. V. Aarthi
5.	Date of initiation	04.10.2018
6.	Current status	Ongoing project
7.	Status: Literature review about the ingredients and process of the project have been carried out. Raw materials have been procured in local market and other areas. Trial drug of 1 st batch has been prepared in SCRI pharmacy. Standardization of trial drug is completed. Antioxidant activity, Anti inflammatory screening, Cytotoxicity in normal cell line, activity cell based assay, Anti- tussive activity and Anti inflammatory activity of the formulation have been completed.	

IX. A comparative study on quality control parameters of Mathirai / Tablet formulations used in Siddha system of Medicine.

1.	Objective: Primary: To carry out disintegration time, weight variation test, hardness, friability test, bulk density study of the formulations in comparison with various commercially available tablets along with the Tablet/mathirai prepared in the Siddha Central Research Institute Pharmacy. Secondary: To lay down the draft for Mathirai / Tablet according to the parameters	
2.	Duration of the Project	2 years
3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. M.S. Shree Devi
5.	Date of initiation	28.12.2017
6.	Current status	Ongoing project
7.	Status: Collection/procurement of raw drugs, medicinal plants was completed as per the project requirements and authentication of collected/procured raw drugs, medicinal plants also completed. The purification as well as preparation of project listed drugs like Swasa Kudori Mathirai, Bala Sanjeevi Mathirai, Santha Chandrodayam, Neerkovai Mathirai, Murukkanvidai Mathirai, Brahmananda Bairavam, Lavankathi Mathirai, Kunkummaapoo Mathirai, Vishnu Chakaaram, Vasantha kasumakaram successfully completed as per the project outcome. The instruments procurement process was completed through e-tender process as well as GEM government portal to set up quality control facility as well as production process facility in SCRI Pharmacy as utility assets for the production and quality control of project listed drugs.	

X. Standardization of Sirukan Nagam Suddhi (Purification) and Physio chemical evaluation of Naga parpam, a Siddha drug - In process study.

1.	Objectives:
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	Primary: Scientific validation of preparation of Naga parpam and physio chemical evaluation of Naga parpam Secondary: In process standardization of Sirukan Nagam		
2.	Duration of Project		2 years and 3 months
3.	Participating centre		SCRU Bengaluru (Work done at SCRI Pharmacy, Chennai)
4.	PI		Dr.M. Harihara Mahadevan
5.	Date of initiation		22.12.2017
6.	Current status		Ongoing project
7.	Status: Preparation of Naga parpam from purified Nagam was completed. The products of various stages of preparation were given for SEM analysis at BITS, Hyderabad. The samples were given to VIT, Vellore for FTIR and XRD analysis.		
XI. In-process standardization of Velvanga Parpam (VP) - a classical Siddha drug and a pilot study to evaluate its safety and therapeutic efficacy in madhumegam (type II Diabetes mellitus)			
1.	Objectives: Primary: To carry out the in-process standardization, chemical characterization of Velvanga parpam (VP) and to evaluate its safety in human subjects. Secondary: To assess the efficacy of trial drug in the management of Madhumegam (Type II Diabetes mellitus).		
2.	Duration of Project		3 Years
3.	Participating centres along with PI (It is an IMR collaborative project) SRRI, Puducherry		
4.	S.N.	Name of the participating Centres	Name of PI
	i.	SRRI, Puducherry	Dr. A. Rajendra Kumar
	ii.	MTPG & RIHS	Dr. V. Gopal
5.	Date of initiation		19.03.2020
6.	Current status		Ongoing project
7.	Outcome: Type 2 diabetes mellitus (Type 2 DM) has been recognized as the recent pandemic; India and China competing each other for the title “Diabetes Capital of the World.” The weighted prevalence of diabetes (both known and newly diagnosed) in Tamil Nadu was 10.4% and the prevalence of prediabetes was 8.3%. The results of this trial will validate the chemical characterization of various elements starting from the raw materials up to formulated product present in the trial drug as well as the safety and efficacy of Velvanga parpam in the management of Madhumegam.		

3.4. Pharmacology & Toxicology

3.4.1. Pre-clinical Studies

The studies have been conducted on the predetermined experimental models in the laboratory attached to the SCRI, Chennai. These studies are based on experimental models in different species of animals and provides vital information for pursuing clinical studies.

Table 25: Drugs allocated and studied

S.N.	Drug allotted	Target fixed	Studies carried out	Remarks
1.	IMR - project: Safety evaluation of a Siddha Poly Herbal Formulation, Nilappanai Chooranam and its effect in the treatment of Oligospermia (Vindhanu Kuraipadu)	Toxicity & Efficacy	Chronic toxicity in rats	Completed
			Oligospermia activity in rats	Completed
2.	IMR - project: "Toxicological studies on Aya poonaga chenduram, (APNC) for peenisam (Sinusitis) - Herbo mineral formulation"	Toxicity & Efficacy	Chronic toxicity in rats	Under progress
			Anti-inflammatory study in rats	Completed
			Immunomodulatory activity	Completed
3.	IMR - Collaborative project: Pre-clinical safety and efficacy study of Nuna Kadugu (Internal Medicine) and Nuna Thailam (External Medicine) in Venpadai (Vitiligo)	Toxicity & Efficacy	Toxicity study	Under progress
4.	EMR-Project: Therapeutic efficacy of Rasaganthi Mezhugu (RGM) in 7-12 Dimethyl Benz (a)anthracene (DMBA) induced mammary tumors in rats	Efficacy	Therapeutic efficacy of Rasaganthi Mezhugu (RGM) in 7-12 Dimethyl Benz (a)anthracene (DMBA) induced mammary tumors in rats	Under progress

3.4.2. Intra Mural Research Projects

I. Evaluation of Anti-hyperlipedemic activity of D5 Chooranam in rats	
1.	Objectives: To evaluate the hyperlipedemic activity in D5 Chooranam
2.	Duration of Project 1 year
3.	Participating centre SCRI, Chennai
4.	Name of the PI Dr. G. Dayanand Reddy
5.	IAEC approval no. 167/PHARMA/SCRI/2017
6.	Date of initiation December, 2017

7.	Current status	Project completed.
8.	Summary of work done: The progress report after vetting from the external experts has been communicated to PI and the modifications were carried out by the PI and submitted to Council. Since D5 Chooranam is in the process of obtaining patent, the report will be published later.	
II. Pre-Clinical Evaluation (Chronic toxicity) of Gowri Chinthamani Chenduram – A Siddha Drug.		
1.	Objectives: <ul style="list-style-type: none">To study the effect of Gowri chinthamani chendooram on body weight, feed and water intake and clinical observationsTo study the effect of Gowri chinthamani chendooram on Hematological changesTo study the effect of Gowri chinthamani chendooram on biochemical changesTo perform the histo-pathological examination of organs of experimental animals at 90th day (after treatment) and at 120th day post recovery period.	
2.	Duration of Project	1 year
3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. P. Elankani
5.	IAEC approval no.	164/PHARMA/SCRI, 2017
6.	Date of initiation	April, 2018
7.	Current status	Project has been completed and final report of the project has been submitted to the Council for vetting.
8.	Summary of work done: <p>No changes in body weights, food and water intake, cage side observations, clinical observations, clinical pathology, mortality, macroscopic examinations and organ histopathology were noted during treatment period and post recovery period.</p> <p>Based on the results of this study, the no-observed-adverse-effect-level (NOAEL) of <i>Gowri chinthamani chendooram</i> in rats is >400 mg/kg/day when administered orally for 90 days.</p>	
III. Nephroprotective effect of <i>Sphreanthus amarathoides</i> Burm.f. against Gentamycin induced nephrotoxicity in Rats		
1.	Objectives: To evaluate the Nephroprotective effect of <i>Sphreanthus amarathoides</i> Burm.f. against Gentamycin induced nephrotoxicity in Rats against Gentamycin induced nephrotoxicity in Rats	
2.	Duration of Project	1 year
3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. R.Ganesan
5.	IAEC approval no.	172/PHARMA/SCRI, 2017

6.	Date of initiation	04.04.2018
7.	Current status	Project has been completed and final report of the project has been submitted to the Council for vetting.
8.	Summary of work done: Gentamicin induced nephrotoxicity is mainly associated with an increase in serum creatinine, blood urea nitrogen and renal oxidative stress (TIBARS) and decreases in renal glutathione. <i>S. amaranthoides</i> decreases serum creatinine, blood urea nitrogen and renal TIBARS and increase renal glutathione. Thus, <i>S. amaranthoides</i> has potential to prevent gentamicin induced nephrotoxicity possibly by protecting the kidney from lipid peroxidation and oxidative stress.	
IV. Toxicological studies on Aya poonaga Chenduram (APNC) for Peenisam-a herbo-mineral formulation		
1.	Objectives: <ul style="list-style-type: none">To evaluate the toxicological studies of APNCTo study the safety and efficacy of the proposed Siddha herbo-mineral formulation	
2.	Duration of Project	1 year
3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. G. Dayanand Reddy
5.	IAEC approval no.	199/Pharma/SCRI, 2018
6.	Date of initiation	July 2018
7.	Current status	Ongoing project
8.	Status: Aya poonaga chenduram, Seenthil choornam and their combination was found to have significant Anti-inflammmatory and Immunomodulatory activity. The Chronic toxicity studies of combination of Aya poonaga chenduram and Seenthil choornam has been carried out at dose levels of 13mg/kg b.w.+ 200 mg/kg b.w., 65 mg/kg b.w.+ 1000 mg/ kg b.w.,130 mg/kg b.w.+ 2000 mg/kg b.w. respectively. Awaiting for the histopathology and urine analysis reports.	
V. Evaluation of Anti Cancerous activity of Sengathari Ennai in <i>in-vitro</i> method		
1.	Objectives: Primary: To evaluate the anti-cancerous activity of Sengathari Ennai in in-vitro against the oral squamous cell carcinoma (KB mouth cell line, mouth epidermal carcinoma cells) human breast cell carcinoma (MCF-7 breast cancer cells), cervical carcinoma (ME-180) and hepato-cellular carcinoma(Hep G2) Secondary: To evaluate the action of target specificity	
2.	Duration of Project	1 year
3.	Participating centre	SCRU, Bengaluru
4.	Name of the PI	Dr. R. Thilagavathi

5.	IAEC approval no.	NA
6.	Date of initiation	May, 2018
7.	Current status	Project has been completed and final report of the project has been submitted to the Council for vetting.
8.	Outcome: To substantiate the claim of usefulness of Sengathari Ennai in Cancerous state as mentioned in Athama ratchamirtham. If found useful in <i>in-vitro</i> , the same will be tried in in vivo.	
VI. A Siddha poly herbal formulation (Nilappanai Choornam) in the management of Oligospermia (Vindhanu Kuraipadu)		
1.	Objectives: Primary: To perform the standardization aspects such as physico chemical, etc., and conduct the reverse pharmacological studies Secondary: <ul style="list-style-type: none">To evaluate the therapeutic efficacy and safety of Nilappanai Chooranam – A Siddha poly herbal formulation in the management of Oligospermia (Vindhanu Kuraipadu)To follow up the participants enrolled in the study for positive feedback	
2.	Duration of Project	3 years
3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. S. Selvarajan
5.	IAEC approval no.	200/Pharma/SCRI, 2018
6.	Date of initiation	September 2016
7.	Current status	Project has been completed and final report of the project has been submitted to the Council for vetting.
8.	Summary of work done: The Chronic toxicity studies reveals that Nilappanai Chooranam was found to be safe and NOAEL was observed upto a dose level of 900 mg/kg b.w. Nilappanai Chooranam was found to have dose dependent effect at dose levels of 360 mg/kg b.w., 720 mg/kg b.w., and 1440 mg/kg b.w. in the treatment of Oligospermia (Vindhanu Kuraipadu) in Experimental Rats.	
VII. Preclinical Safety and Efficacy of Nuna Kadugu (Internal Medicine) and Nuna Thailam (External Medicine) in Venpadai (Vitiligo)		
1.	Objectives: To scientifically validate the safety and efficacy of Nuna Kadugu (Internal medicine) and Nuna Thailam (External medicine) for Venpadai (Vitiligo) in animal model.	
2.	Duration of Project	3 Years
3.	Participating centre	Centre for Toxicology and Developmental Research, Sri Ramachandra Institute of Higher Education, (Deemed University), Porur, Chennai – IMR Collaborative Project
4.	Name of the PI	Dr. Eugene Wilson

5.	IAEC approval no.	IAEC/49/SRU/521/2016
6.	Date of initiation	28.03.2017
7.	Current status	Ongoing project
8.	Status: The trial drugs Nuna Kadugu (Internal Medicine) and Nuna Thailam (External Medicine) were prepared as per Standard Operating Procedure (SOP) followed by standardization of the test formulation. Stability studies of Nuna Thailam and Nuna Kadugu has been accomplished. Based on the result of 90-day oral toxicity study of Nuna Kadugu and 90-day Dermal toxicity study of Nuna Thailam efficacy studies of Nuna Kadugu and Nuna Thailam in Mice will be taken up shortly followed by 180-day oral toxicity study of Nuna Kadugu as well as 180-day dermal toxicity study of Nuna Thailam.	

VIII. Toxicological Studies of Nathai Choori Choornam

1.	Objectives: Preclinical evaluation for determination of Toxicity studies of Nathai Choori Choornam in rats	
2.	Duration of Project	1 year
3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. G. Dayanand Reddy
5.	IAEC approval no.	131-Pharma/SCRI-2014; Date:28-09-2013
6.	Date of initiation	19.03.2020
7.	Current status	Ongoing project
8.	Outcome: To establish the safety of Nathai Choori Choornam	

IX. Evaluation of Antidiabetic activity of *Argyreia serecea* Dazell (Oonan kodi) against streptozotocin induced diabetes in rats

1.	Objectives: To evaluate the Antidiabetic activity of <i>Argyreia serecea</i> . Dazell against streptozotocin induced diabetes in rats	
2.	Duration of Project	1 year
3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. R. Ganesan
5.	IAEC approval no.	201/PHARMA/SCRI, 2018
6.	Date of initiation	19.03.2020
7.	Current status	Ongoing Project
8.	Outcome: To evaluate the Antidiabetic activity of <i>Argyreia serecea</i> Dazell.	

X. A randomized controlled trial to determine the safety and efficacy of Sivanarvembu Kuzhithailam (SVK) in the management of Kalanjagapadai (Psoriasis)

1.	Objectives: Primary: To determine and compare the safety and efficacy of <ul style="list-style-type: none"> Sivanarvembu Kuzhithailam (SVK) Vs Vetpalai thailam and Sivanarvembu Kuzhithailam with Vetpalai thailam (VP) in reducing the PASI score in Psoriasis. 	
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	Secondary: To validate the biochemical changes in the study subjects and to determine the improvement of their quality of life before and after treatment.
2.	Duration of Project 3 Years
3.	Participating centre SRRI, Puducherry
4.	Name of the PI Dr. R. Rathinamala
5.	IEC approval no. SRRI/2017-18/IHEC/EA-02
6.	Date of initiation 28.03.2020
7.	Current status Ongoing project
8.	Outcome: The reported prevalence of psoriasis in countries ranges between 0.09% and 11.43%, making psoriasis a serious global problem with at least 100 million individuals affected worldwide. The results of this trial will validate the safety and efficacy of Sivanarvembu Kuzhithailam in the management of Kaalanjagapadai.

XI. Evaluation of the Effect of Purana Chandrothaya Chenthuram (PCC) on Cognition in Rodents

1.	Objectives: <ul style="list-style-type: none"> • Mechanism of action of the drug PCC on learning and memory in rodents. • Molecular assays to derive whether the drug PCC has action on Neurogenesis
2.	Duration of Project 1 Year
3.	Participating centre SRRI, Puducherry
4.	Name of the PI Dr. B. Chitra
5.	IAEC approval no. 185/PHARMA/SCRI, 2018
6.	Date of initiation 19.03.2020
7.	Current status Ongoing project
8.	Outcome: Almost 47 million people are living with dementia around the world. Among them 4.1 million in India, according to a new report which also found that nearly half of all people with dementia globally will live in Asia by 2050. The results of this trial will validate the efficacy and safety of selected Siddha formulation to be used in the management of dementia.

XII. Sub-chronic Oral Toxicity (90-Days) Study of Velvanka Parpam In Rats

1.	Objectives: To evaluate the safety of Velvanka parpam through sub- chronic oral toxicity in rats
2.	Duration of Project 2 Years
3.	Participating centre SCRUI, Tirupati
4.	Name of the PI Dr. K. Samraj
5.	IAEC approval no. SCRI-183/18-19-2019
6.	Date of initiation 19.03.2020
7.	Current status Ongoing project

8. **Outcome:** According to the 90 days sub-chronic toxicity study, the human dose will be calculated and fixed as per the Institutional Human Ethical Committee's (IHEC) recommendation for the proposed clinical trial.

XIII. In-vitro and in-vivo studies to explore the beneficial effect of D5 Chooranam on mice model of obesity

1.	Objectives: <ul style="list-style-type: none">• To study whether D5 Chooranam regimens could resist against HFD-induced obesity and its associated complications• To unravel the mechanism behind the D5 Chooranam against HFD - induced obesity and its associated complications both in-vitro and in-vivo	
2.	Duration of Project	3 Years
3.	Participating centre	SCRI, Chennai
4.	Name of the PI	Dr. L. Sugin Lal Jabaris
5.	IAEC approval no.	175/PHARMA/SCRI, 2018
6.	Date of initiation	19.03.2020
7.	Current status	Ongoing project
8.	Outcome: This project is expected to be a beneficial effect of D5 Chooranam in obesity; this could give new lead for the next level of investigation.	

3.5. Clinical Research

3.5.1. Clinical Studies

The research programme of the CCRS mainly focuses on clinical Research including safety and efficacy studies of Siddha drugs and validation of the fundamental principles.

The clinical research programme of the Council mainly aims at validation of therapeutic efficacy of Siddha medicines and therapies, used for more than 10 decades. The Council also concentrates on innovation of newer drugs for non-communicable diseases especially Diabetes Mellitus, Psoriasis, Vitiligo, Hypertension, Dyslipidemia, Urolithiasis, Fibroid Uterus, Osteo arthritis, Rheumatoid arthritis, Adhesive capsulitis, Constipation and in Benign Prostatic hypertrophy.

3.5.2. Intra Mural Research Projects - Clinical

I.	Status of Labelling, drug information and branding in marketed anti-diabetic Siddha formulations : Cross Sectional Study : Chennai, Tamil Nadu, 2016
1.	Objectives:
	Primary: To estimate the proportion of marketed Siddha formulations for diabetes complying with Indian specifications for pharmaceutical preparations

	Secondary: <ul style="list-style-type: none">To review the stated constituents, indications and actions mentioned in these Siddha formulations by comparing with that of Siddha classical textsTo describe the cost of these formulations by selected characteristics		
2.	Study Design	Cross sectional Study	
3.	Sample size	NA	
4.	Duration of Study	1 year	
5.	Interventions	NA	
6.	Participating centres along with PI (It is an IMR collaborative project)		
	S.N.	Name of the participating Centres	Name of PI
	i.	SCRI, Chennai	Dr. P. Sathiyarajeswaran
	ii.	NIE, ICMR, Chennai	Dr. P. Manickam
7.	IEC approval no.	IHEC/ SCRI (CCRS)-1/2015-16/01	
8.	CTRI Registration	NA	
9.	Date of initiation	03.04.2017	
10.	Current status	Project completed	
11.	Outocme: With the available evidence on checking the status of compliance with labelling guidelines as described in Drugs and Cosmetics act 1940 is being verified and status of the outcome will be disseminated to State Licensing Authority involving all the stakeholders of the project.		
II. Validation of Siddha Udaliyal Inventory-YI for assessment of body constitution :a descriptive cross-sectional study			
1.	Objectives: Primary: To fit a statistical model based on the Siddha body constitution classification parameters. Secondary: To study the relationship between the patient’s demography characteristic and their body constitution.		
2.	Study design	A cross-sectional observational study	
3.	Duration of the study	1 year. Extended for another 6 months	
4.	Participating centre	SCRI, Chennai	
5.	Name of the PI	Dr. M. Kannan	
6.	IHEC approval no.	IHEC/SCRI (CCRS)-1/2018-19/01	
7.	CTRI Registration	CTRI/2018/09/015652	
8.	Date of initiation	May, 2017	
9.	Current status	Project completed	
10.	Outcome: A website (https://www.siddhayitool.com) was developed and launched in the 3 rd Siddha day. When it was demonstrated, the State Health Secretary, Tamil Nadu was impressed and insisted the Joint Director, ISM&H to implement this in all medical institutions and primary health centres.		

It is the Siddha Genomics theory, converted as a translational research tool for assessment of the Body Constitution of an individual. This will pave way to reach the public to identify their body constitution and to follow the diet and life style modifications and to prevent NCDs like Diabetes Mellitus, Hypertension, Coronary Artery Diseases, Obesity, etc.	
III. Assessment of awareness and usage of Siddha medicine among the patients reporting to selected Siddha OPDs in Puducherry and Karaikkal regions.	
1.	Objectives: Primary: <ul style="list-style-type: none"> To assess the age group of men/Women population, who uses the Siddha medicines To evaluate the public expectations over the quality of Siddha medicines. Secondary: To come out with useful IEC materials in accordance to the need of the general public.
2.	Study Design Non-interventional, questionnaire based survey
3.	Sample size 500
4.	Duration of Study 6 months
5.	Interventions NA
6.	Participating centres SRRI, Puducherry
7.	PI Dr. A. Rajendra Kumar
8.	CTRI Registration NA
9.	Date of initiation September, 2016
10.	Current status Project completed
IV. Multi centric single arm prospective open trial to check the safety and efficacy of a classical Siddha formulation Rasagandhi Mezhugu in Karuppai Narthasai Kattigal (Fibroid Uterus) among women (25-45 years) attending CCRS-research institutes/unit (MERRYFUL)	
1.	Objectives: Primary: To determine the reduction in the size of the uterine fibroids. Secondary: <ul style="list-style-type: none"> To determine the reduction in clinical symptoms of the patients. To determine the quality of life of the patient. To evaluate the safety of the trial drug. To estimate the recurrence of the fibroid.
2.	Study Design Open labeled single arm, multi-centric clinical trial
3.	Sample size 120
4.	Duration of Study 3 years
5.	Interventions Rasa Gandhi Mezhugu
Participating centres along with PI	

6.	S.N.	Name of the participating Centres	Name of PI/ Co-PI
	i.	SCRI, Chennai	Dr. Shyamala Rajkumar
			Dr. M. Bhavani
			Dr. Padmalatha
	ii.	SRRI, Puducherry	Dr. A. Rajendra Kumar
			Dr. Himabindu
	iii.	SRRI, Thiruvananthapuram	Dr. G.S. Lekha
			Dr. Benitha Segin
iv.	SCRU, Palayamkottai	Dr. R. Sivaranjani	
		Dr. Nirmala Vijayakumar	
7.	IEC approval no.		
	i.	SCRI, Chennai	IHEC / SCRI (CCRS)-1/2018-19/01
	ii.	SRRI, Puducherry	SRRI/2013-14/IHEC/EA-02
	iii.	SRRI, Thiruvananthapuram	CCRS/SRRITVM/2014/IEC04/02
	iv.	SCRU, Palayamkottai	IHEC/SCRU(CCRS)/2019-2020/01
8.	CTRI Registration		CCRS/MERRYFUL/CRR/ 2019/08/020927
9.	Current status		Ongoing project
10.	Status: IEC approval was obtained from all the four centres, Ultrasonogram machine was procured as per codal formalities and PNDDT approval was also obtained. The stability studies were completed for the trial drug. CTRI registration was done and got the number. Three Research Associates (Siddha) were recruited as per norms and posted in the study centers. As per the direction of IEC, SCRI, Chennai, a Trial manual was prepared and given to the Co-PIs to carry out the trial. Two meetings were conducted among with the PI, Co-PI and RA(S) and discussed about the conduction of the trial as per trial manual. The insurance coverage for the trial participants was also done. In the reporting year, one hundred and forty six Fibroid uterus patients were screened, twenty one trial participants were recruited and three participants were dropped out in the study as per the criteria.		
V. Randomized Controlled Trial of two Siddha drugs in the management of Urolithiasis (Kalladaippu)- Phase II			
1.	Objectives: Primary: To evaluate the efficacy of the trial drugs – <ul style="list-style-type: none">• Nandukkal Parpam (NP) and• Neermulli Kudineer (NMK) - by observing the expulsion or reduction in the numbers and / or size of renal stones in human participants.		

	Secondary:
	<ul style="list-style-type: none"> To assess the recurrence of renal stones, if any. To assess the safety of the trial drugs.
2.	Study Design
	Phase 2, RCT; Computer generated randomization would be followed for this purpose
3.	Sample size
	90 (30 in each groups)
4.	Duration of Study
	3 years (extension given for another 1 year)
5.	Interventions
	<ul style="list-style-type: none"> Nandukkal Parpam (NP) Neermulli Kudineer (NMK)
6.	Participating centre
	SRRI, Puducherry
7.	Name of the PI
	Dr. A. Rajendra Kumar
8.	IEC approval no.
	SRRI/2013-14/IHEC/EA-01
9.	CTRI Registration
	CTRI/2018/08/015491
10.	Date of initiation
	March 2016
11.	Current status
	Ongoing project
12.	Outcome: So far 63 patients have been screened. As the patients did not come for further follow-up, recruitment process is yet to be re-started. Further, due to Covid-19 outbreak, it is very much uncertain to screen for ultrasound procedures as the Visiting Radiologist also could not come due to lockdown

VI. Evaluation of safety and efficacy of Sivappu kukkil thylam or Kunthirikka thylam and Varmam therapy among subjects with Osteo Arthritis of knee joints

1.	Objectives: To evaluate the efficacy of the local application of a Siddha classical formulation "Sivappukukkil Thylam" in combination with Varmam Therapy to reduce pain, maintain or improve joint mobility and limit functional impairment in elderly with Knee Osteoarthritis
2.	Study Design
	Open labelled three armed single centric clinical trial
3.	Sample size
	30 subjects for each three groups
4.	Duration of Study
	3 years
5.	Interventions
	<ul style="list-style-type: none"> Sivappu Kukkil Thylam Varmam Therapy
6.	Participating centre
	SCRU, New Delhi
7.	Name of the PI
	Dr. S. Saravanan
8.	IEC approval no.
	SCRU/KB/IEC/2016/01/01
9.	CTRI Registration
	CTRI/2018/06/014639
10.	Date of initiation
	23.11.2017
11.	Current status
	Ongoing project

12. Outcome:

Primary:

- Western Ontario and Mc Master Universities Osteoarthritis Index (WOMAC) pain and functional scores – On day 0, Day 14 and during each follow up visit
- Visual Analog Scale (VAS) for pain assessment – Daily done before and after therapy and during each follow up visit

Secondary:

- Range of Motion (ROM) – Daily done before and after therapy and during each follow up visit
- Time to walk 50 feet – On day 0, Day 7, Day 14 and during each follow up visit.

VII. Evaluation of Efficacy and Safety of two Siddha formulation for the treatment of functional constipation –a comparative randomized clinical trial

1. Objectives:

Primary objective

- To study the efficacy of the Sivathai Chooranam and Nilavarai Chooranam on functional constipation using Bristol stool form scale and modified Longo ODS score.
- To compare the efficacy of the Sivathai Chooranam and Nilavarai Chooranam

Secondary Objective:

- To evaluate the safety of the Sivathai Chooranam and Nilavarai Chooranam on functional constipation
- To evaluate the Patients quality of life using the PAC-QOL (Patient assessment of constipation quality of questionnaire)

2. Study Design	Comparative, Double Arm, Single-centre, clinical trial
3. Sample size	60
4. Duration of Study	3 years
5. Interventions	Sivathai Chooranam and Nilavarai Chooranam
6. Participating centre	SCRU, New Delhi
7. Name of the PI	Dr. R. Manickavasagam
8. IEC approval no.	SCRU/IEC/201704-10-02
9. CTRI Registration (for clinical trials)	CTRI/2019/02/017831
10. Date of initiation	05.06.2018
11. Current status	Ongoing project

12. **Status:** The clinical trial was initiated. 62 patients were screened and 25 trial participants were recruited for the study. Due to administrative reasons SCRUI was shifted to A&U Tibbia College to Safdarjung Hospital, New Delhi. After shifting no recruited trial participants turned up for the next visit and they were considered as drop outs. Then, due to Covid-19 outbreak the project is kept on hold.

VIII. A randomized three arm clinical trial on the effectiveness of Mudakku Vatha Ilagam (MVI) ^[1] and Varmam Therapy in midlife population afflicted by Azhal Keel Vayu (AKV) (Knee-Osteoarthritis)

1. **Objectives:**
Primary:
 - To evaluate the safety of the trial drug KV Ilagam (KVI) in a dose of 5gm.**Secondary:**
 - To evaluate the efficacy of the trial drug using WOMAC 3.1 index.
 - To evaluate the quality of life of patients with Azhal Keel Vayu (AKV) with the questionnaire of OAKHQOL (Osteoarthritis of Knee Hip Quality of Life).
2. **Study Design** A randomized controlled open labeled pilot study
3. **Sample size** 54 (18 participants in each group)
4. **Duration of Study** 2 years
5. **Interventions**
 - KV Ilagam
 - Varmam Therapy
6. **Participating centre** SRRI, Puducherry
7. **Name of the PI** Dr. S. Shunmugaram
8. **IEC approval no.** SRRI/2017-18/IHEC/EA-04
9. **CTRI Registration** CTRI/201/04/018752
10. **Date of initiation** 28.03.2018
11. **Current status** Ongoing project
12. **Status:** CPWD works were in progress for some basic IPD amenities which was completed in January 2020. While planning to commence, due to Covid-19 outbreak IPD admissions have been put off temporarily

IX. Mapping of Varmam points on a 3D virtual body and development of personalized virtual body simulator

1. **Objectives:**
 - Standardization of location of Varmam
 - Individualized Varmam point location mapping
2. **Study design** Standardization of Varmam localization
3. **Duration of the study** 3 Years
4. **Participating centre** SCRI, Chennai
5. **Name of the PI** Dr. S. Natarajan
6. **Date of initiation** 19.03.2020

7.	Current status	Ongoing project
8.	Outcome: <ul style="list-style-type: none">Standardization of Location of Varmam pointsPersonalized Virtual Body Simulator based on Finger breadth	
X. A randomized three arm clinical trial on the effectiveness of Varmam therapy in Kumbavatham (Adhesive capsulitis)		
1.	Objectives: Primary: To study the effectiveness of Varmam therapy in Kumbavatham patients using SPADI score.(Ref : Roach KE, Budiman-Mak E, Songsirdej N, Lertratanakul Y. Development of a shoulder pain and disability index.Arthritis Care Res 1991;4:143-9). Secondary: <ul style="list-style-type: none">To assess the quality of life using Short Form-36 (SF-36) questionnaire.To assess the changes in physiological parameters (blood pressure, pulse rate, respiratory rate, body temperature) before and after treatment.To assess the safety of Varmam therapy in Kumbavatham patients.	
2.	Study design	Three Arm Randomized Parallel
3.	Duration of the study	2 Years
4.	Participating centre	SCRI, Chennai
5.	Name of the PI	Dr. R. Meena
6.	IHEC approval no.	IHEC/SCRI (CCRS)-1/2019-20
7.	CTRI Registration	CTRI/2020/08/027350
8.	Date of initiation	19.03.2020
9.	Current status	Ongoing project
10.	Outcome: <ul style="list-style-type: none">Reduction in SPADI score from 8 to 4.Improvement in quality of life.Improvement in range of motion.	

3.5.3. Laboratory

Department of Pathology

The Dept. of pathology was established during year 1979 to support the Dept. of Clinical Research (DCR) and carrying out the clinical, pathological and histopathological works for the patients. The investigations are designed in such a way to support the Dept. of clinical research for confirming the diagnosis and also to assess the prognosis and response of the therapy. Generally in the IPD, the investigations are done at the time of admission, during the treatment and also at the time of discharge.

Table 26: List of investigations done at the Department of Pathology

Investigations			Special investigations
Urine Analysis	Blood Examination	Stools Examination	
Albumin	Hemoglobin %	Ova	Mantoux test
Sugar	Total WBC count	Cyst	Blood VDRL test
Deposits	Differential count	Amoeba	Blood smear study
Bile salts	ESR	Occult blood	
Bile pigments	RBC count		
Ketone bodies	Platelet count		
	PCV		
	MCV		
	Blood grouping		

Department of Bio-Chemistry

The department of biochemistry was established for supporting the department of clinical research and department of pharmacology in carrying out biochemical investigations for the trials conducted on Siddha drugs.

Table 27: List of Investigations done at the Department of Bio-Chemistry

S.N.	Name of the Investigation
1.	Blood Glucose (Fasting)
	Blood Glucose (Post Prandial)
	Blood Glucose OGTT
2.	Blood Urea
3.	Serum Creatinine
4.	Lipid Profile (T.CHOL, TGL, HDL, LDL)
5.	Liver Function Test (Bil.Total & Direct, SGOT, SGPT, ALP, T.Pro, ALB)
6.	Uric Acid
7.	Calcium
8.	Thyroid profile
9.	HbA _{1c}
10.	RF
11.	CRP
12.	ASO
13.	Insulin
14.	Urine Micro albumin
15.	Immunoglobulin E
16.	HIV (Tri-dot method)
17.	HBsAg (HEPA card method)
18.	GGT

3.5.4. Pharmacy

The Pharmacy of SCRI, Chennai has three main divisions like production unit, quality control unit and research unit. Production unit have the role and responsibilities of procuring the raw material, processing the raw material, purification (suthi) process, drug preparation, drug licensing & regulatory aspect, packaging, labeling & dispensing to hospital for patients as per the requirements. Quality control will support to the production unit with respect to quality control estimation of raw materials and in process quality control analysis, analysis of finished drugs to ensure the quality of drugs before reaching the hospital unit. Research unit for various IMR projects to implement the new inventions for framing the protocol, new method, product design and development, pilot studies and scale up activities towards lab studies to production aspects and bringing them into patient care.

Table 28: Details of Medicines Prepared in the Pharmacy

S.N.	Name of Trial / General Medicines	Total Quantity Kg / L / Nos.
1.	Amukkara Chooranam combination	345
2.	Amukkara Chooranam plain	716
3.	Astha chooranam	180.5
4.	Arathai chooranam	93
5.	D5 Chooranam	1090
6.	Kavikkal Chooranam	81
7.	Kazharchi Chooranam	108
8.	Nilavagai Chooranam	410.8
9.	Parangi Pattai Chooranam	408.5
10.	G1 Chooranam	60.5
11.	Thalisathy Chooranam	486
12.	Thirikadugu Chooranam	236
13.	Thiriphala Chooranam	1588.5
14.	TAT Chooranam	280
15.	Vaividanga Chooranam	33
16.	Elathy Chooranam	403.5
17.	Seenthil Chooranam	65
18.	Sangu Parpam	30.25
19.	Kukil Parpam	87.5
20.	Silajit parpam	47.3
21.	Muthuchippi Parpam	45.2
22.	Palagarai Parpam	92.3
23.	Nandukkal Parpam	8.5
24.	Annabedhi Chenduram	12.05
25.	Linga Chenduram	19.95
26.	Sivanar Amirtham	3.9
27.	Natthai Parpam	2.6

28.	Nilavembu Kudineer Chooranam	593.2
29.	Arathai Kudineer Chooranam	89
30.	Arugan Thailam	974
31.	Kukil Thailam NO. 2	2340
32.	Karpoorathi Thailam	1275
33.	777 Oil	54.5
34.	Avuri Thailam	44
35.	Mathan Thailam & Thurusu	374
36.	Vanga Virana Kalimbu	149
37.	Vengara Podi	6
38.	Nagapoochu Marunthu	1.5
39.	Neerkovai Mathirai	20
40.	Padiga Panner	5
41.	Moolakudoora Ennai	5.4
42.	T.V Paste	34.3
43.	Gunmakudori Mezhugu	14
44.	Padika Lingam	1.5
45.	Pattu Karuppu	0.5
46.	Thair Chunti Chooranam	1
47.	Maganatha Kuligai	0.1
48.	Rasa Gandhi Mezhugu	1
49.	Gowri Chinthamani	0.5
50.	Nandhi Mezhugu	1
51.	D5 Chooranam Tablet	10

3.5.5. Pharmaco-Vigilance Programme

Now-a-days worldwide movement for the improvement of patients' safety is gaining momentum. Accordingly, the subject of drug safety has gained more significance in the present day scenario. At present with increased use of Siddha drugs, the issue of adulteration and use of counterfeit drugs have also increased. Hence, a mechanism is required to be evolved to address these issues. In this direction, pharmaco-vigilance aims at documenting the harmful effects of any drug causing adverse reactions. The number of adverse reactions / ill-effects of Siddha drugs reported in the National Pharmaco-vigilance in India are negligible. This programme was initiated to collate and document the data related to ADRs.

Aims & Objectives

This programme aims at providing the data of adverse drug reactions of the drugs of herbal, mineral, animal and other origins used in Siddha system of medicine.

Date of Implementation: April 2009

Participating Institutes / Units

1. SCRI, Chennai
2. SRRI, Puducherry
3. SRRI, Thiruvananthapuram
4. SCRUI, New Delhi

Above participating Institutes / Units have screened all the OPD and IPD patients for ADRs, if any.

There is a tall claim that traditional medicines are safe and have no side effects. As per NPvC of India, National Pharmacovigilance Coordination Centre-All India Institute of Ayurveda, New Delhi and initiatives from the Ministry of AYUSH, this institute has given contribution to the Pharmacovigilance system to emphasize more on the documentation of ADRs, misleading advertisements and creating awareness.

Central Sector Scheme of Pharmacovigilance for Ayurveda, Siddha, Unani, Homeopathy drug have developed a network to Ayurveda, Siddha, Unani, Homeopathy Pharmacovigilance centres comprising of NPvC, IPvC, PPvC. The aim of the scheme is to increase awareness about ADRs reporting and to reduce the misleading advertisements about ASU&H drugs. SCRI is identified as the PPVC on 2018 as per the newer initiatives of Ministry of AYUSH. Through Pharmacovigilance, quality of drugs can be improved, and medication errors can be reduced for the betterment of public domain.

Activities

- No. of Adverse Drug Reaction/ Adverse Event reported - 16
- No. of Misleading Advertisements reported - 40
- No of Awareness Program Conducted - 9



Figure 2: A National Pharmacovigilance Awareness Programme on 26th November, 2019 at SRRI, Thiruvananthapuram

3.6. Literary Research and Documentation

Literary research lays platform to any research in Siddha system as they are the scientific reflections of the intuitions of Siddhars. Palm leaves and paper manuscripts still hold with them many unfolded scientific details which are yet to be unearthed.

A literary research unit came into existence under the aegis of Government of India, at the Saraswathi Mahal Library Campus, Thanjavur during the year 1964 for the enlightenment of the Siddha system. In 1971, one more Literary Research Unit was started at Government Siddha Medical College, Palayamkottai. They have made wonderful collections of traditional manuscripts and very old Siddha printed books dealing with treatment of ailments from the traditional physicians all over Tamil Nadu. In 1979, the units were merged and formed as Literary Research & Documentation Department (LR&DD) at Central Research Institute for Siddha, Chennai. In April 2007, the LR&DD was merged with CRIS, Chennai.

The wealth of traditional medicines is available both in a coded and non-coded documents. This traditional knowledge needs to be properly documented, digitalized, preserved and published in public domain for its effective use always. Both virtual and real manuscripts made available as a ready reckoner for students, research scholars and for the public. Literary Research and Documentation Department under the umbrella of the Siddha Central Research Institute is carrying out the said activities in a stipulated manner.

Key Activities of LR & DD

- Collection of manuscripts and other old, rare printed books and handwritten copies.
- Cleaning and preservation of collected materials.
- Cataloguing and classification.
- Transcription of Palm Leaves manuscripts.
- Annotation of verses.
- Typing of transcribed poems along with annotations and its submission for approval.
- Publication of translated Siddha text in English, Hindi and other south Indian languages.
- Sale of publications of CCRS.

Achievements

During the period under report, 65 e-books were added to the e-Library.

3.6.1. Intra Mural Research Projects

I. Siddha treatment guidelines for selected Non-Communicable Diseases		
1.	Objectives: To develop a Siddha Standard treatment guideline for selected non – communicable diseases.	
2.	Duration of Study	1 year
3.	Nature of Document / Publication	Book
4.	Participating centre	SCRI, Chennai
5.	PI	Dr. P. Sathiyarajeswarn
6.	Date of Initiation	February, 2017
7.	Current status	The PEMC comments has been communicated to PI for incorporating the suggestions in the report.
8.	Summary of work done: Siddha treatment guideline for selected Non-Communicable Diseases (11 diseases) were completed.	
II. Database of Siddha preparations for certain diseases mentioned in the enlisted literatures of Drugs & Cosmetic Act 1940		
1.	Objectives: <ul style="list-style-type: none">To compile classical Siddha preparations for disease conditions from the available Siddha Books included in the first Schedule of Drugs and Cosmetics Act, 1940To create a standard Database first of its kind in Siddha with the above collection inclusive of appropriate transliteration	
2.	Duration of Study	1 year
3.	Nature of Document / Publication	Book
4.	Participating centre	CCRS, Chennai
5.	PI	Dr. Shyamala Rajkumar
6.	Date of Initiation	16.06.2016
7.	Current status	Project Completed
8.	Outcome: The project work was approved by the members of the PEMC. Few suggestions were given by the members for easy reference of the work. All the modifications were carried out and incorporated in the book. The book was released by Shri Shripad Yesso Naik, Hon’ble Minister (IC), Ministry of AYUSH in the 3 rd Siddha day celebration. Moreover, it is a ready reckoner for the Researchers and Academicians to choose the classical formulations for the 20 diseases mentioned in the project to do research in traditional medicines.	
III. Vernacular Name Encyclopaedia of Siddha Drugs mentioned in Siddha Materia Medica (Gunapadam) (VERNAES)		
1.	Objectives: To achieve an encyclopaedia book compiled for exploring the meaning of vernacular names.	
2.	Duration of Study	3 years
3.	Nature of Document / Publication	Book

4.	Participating centre	SCRI, Chennai
5.	PI	Dr. P. Sathiyarajeswaran
6.	Date of Initiation	12.09.2016
7.	Date of Completion	11.09.2019
8.	Current status	Ongoing project
9.	Status: Converted about 1000 names of gunapadam as a whole and given specific meanings. Database and conversion completed. Peer review is in progress.	

IV. Siddha Encyclopedia & Android Application for Research Community and Health care institutions (T.V. Sambasivam Pillai Medical Dictionary)

1.	Objectives: Primary: Creation and installable CD_ROM and thereby converting TV Sambasivam Pillai dictionary Secondary: Developing a copy righted Android Mobile application of Siddha Encyclopedia (TVS Medical Dictionary)	
2.	Duration of Study	2 years
3.	Nature of Document / Publication	Web site, Mobile App Module (IOS), Mobile App Module (Android)
4.	Participating centre	SCRI, Chennai
5.	PI	Dr. M. Kannan
6.	Date of Initiation	17.03.2017
7.	Current status	Project has been completed and final report of the project has to be submitted to the Council for vetting.
8.	Status: The first basic version of Android, iOS mobile app and website have been launched by Shri Shripad Yesso Naik, Hon'ble Minister (IC), Ministry of AYUSH in the 3 rd Siddha Day Celebrations at Amma Arangam, Shenoy Nagar, Chennai on 13 th January, 2020.	

V. Annotation and Translation of the Siddha Classical Book "Agathiyar Aruliya Pin Enbathu"

1.	Objectives: Primary: To annotate the Siddha classical Book Agathiyar Aruliya Pin 80 and translating it into English and Hindi Secondary: E-book publication, Book Publication	
2.	Duration of Study	2 years
3.	Nature of Document / Publication	Books, E-Books
4.	Participating centre	SCRI, Chennai
5.	PI	Dr. P. Thenmozhi
6.	Date of Initiation	05.01.2018
7.	Current status	Project has been completed and final report of the project has been submitted to the Council for vetting.
8.	Status: Annotation in Three languages (Tamil, English and Hindi) have been completed	

VI. Developing National SNOMED-CT (Systematized Nomenclature of Medicinal-Clinical Terms) Extension for Siddha through National Resource Centre for EHR Standards (NRCeS). C-Dac, Pune

1.	Objectives: Development of National extensions of Systematized Nomenclature of Medicine – Clinical Terms (SNOWMED-CT) for Siddha with a target of the release of four national Extensions per year.	
2.	Duration of Study	3 years
3.	Nature of Document / Publication	Database
4.	Participating centre	SCRI, Chennai
5.	PI	Dr. M. Kannan
6.	Date of Initiation	28.03.2020
7.	Current status	Ongoing Project
8.	Outcome: The document will serve as a functional, benchmark document across the globe to ensure appropriate usage of Siddha terminology in consonance with current health care service, research and development methods.	

3.6.2. AYUSH Research Portal

A web based portal for research articles in AYUSH is successfully ongoing and the information is being periodically updated. As on date 1448 scientific articles have been uploaded. Research papers/articles related to fundamental including literary, drug and pre-clinical, clinical research were uploaded periodically by CCRS through search and peer review committee.

3.6.3. Siddha Dossier

The final revised draft of Siddha dossier was submitted to Ministry of AYUSH and the same was approved. The Siddha Dossier was released on 13th September, 2019 by the Hon'ble Minister of State (I/C), Ministry of AYUSH, New Delhi during the inauguration of Siddha Clinical Research Unit in Safdarjung Hospital, New Delhi.



Figure 3: Releasing of Siddha Dossier on 13th September, 2019 at SCRUI, New Delhi

3.7. Publications

3.7.1. Publication of Research Papers / Articles

1. Kanakavalli K, Eugene Wilson, Vinayak S. Siddha System of Medicine in a Nutshell. Yojana. 2019; 63: 36-38.
2. Kanakavalli K, Eugene Wilson. The Siddha System of Medicine a Geographical Perspective. Geography and You 2020; 20 (3): 26-31.
3. Kanakavalli K, Eugene Wilson. Scope and Challenges in the Implementation of Pharmacovigilance for Siddha Formulations. Proceedings of National Conference on Pharmacovigilance and 18th Annual Conference of Society of Pharmacovigilance, held from 8th to 10th November, 2019 at IPGT & RA, GAU, Jamnagar, Gujarat. Compendium of Invited Articles on Pharmacovigilance. 2019; (Ayushsuraksha): 237-239.
4. Kanakavalli K, Natarajan S, Anbarasi C. Yoga for Healthy Life: Siddhar Thirumoolar's Concept in Siddha System of Medicine – An Overview. Journal of Research in Siddha Medicine. 2019; 2(1): 18-21.
5. Dayanand Reddy G, Naga Rani G, Narasimha Kumar GV, Elankani P, Pitchiah Kumar M. A Comprehensive review on Thetran Vidhai Kudineer: A Siddha polyherbal formulation. International research Journal of pharmacy. 2019; 10(3): 42-48.
6. Dayanand Reddy Gaddam, Rama Devi Bhogireddy, Dasari Pitchaiah, Vijaya Narasimha Kumar Godlaveti. A Comprehensive Review on Anti-Diabetic Formulations employed in Siddha System of Medicine. The Journal of Phytopharmacology. 2019; 8(3): 142-146.
7. Dayanand Reddy G, Sathiyarajeswaran P, Patturayan R, Ganesan R, Narasimha Kumar GV, Dhanaraj K, Rama Devi B. Evaluation of Acute, Sub Acute Toxicity and immune modulatory activity of Urai Mathirai-Siddha herbal formulation. Journal of Global Trends in Pharmaceutical Sciences. 2019; 10(3): 6372-6382.
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3.7.2. Publication of Books

1. A Hand Book on Siddha Medicinal Plants Garden; Dr. M. Padma Sorna Subramanian; April, 2019.
2. Metadata of Siddha. Prof. Dr. K. Kanakavalli, Dr. P. Sathiyarajeswaran, Dr. M. Kannan, Dr. P. Thenmozhi and All the Research officers (Siddha), SCRI; December, 2019
3. Monograph on Validation of Siddha Udal Iyal Inventory -YI for the assessment of Body Constitution (ABC): a Descriptive cross-sectional study; Prof. Dr. K. Kanakavalli, Dr. P. Sathiyarajeswaran, Dr. M. Kannan, Dr. P. Manickam; December, 2019
4. Marainthu Pona Parampariya Maruthuva Samayal; Dr. B. Vikesh, Dr. S. Thanikaiselvi; 2019
5. Naveena Siddha Maruthuva Sirpigal; Manickavasagam R; B.Rathina Naycker & sons; 2020
6. An Anthology of Research reviews on Siddha integrative Treatment; Siddha Clinical Research Unit-Tirupati; K. Kanakavalli, K. Samraj, K. Nandhagopal, S. Radha, K. Arunachalam, S. Rajalakshmi; January, 2020
7. The Glossary of Medicinal Plants in Siddha System of Medicine; Prof. Dr. K. Kanakavalli, Dr. A. Rajendra Kumar, Dr. Shyamala Rajkumar; CCRS, Chennai; January, 2020
8. Database of Siddha Preparations for certain diseases mentioned in the enlisted Books of Drugs and Cosmetics Act, 1940; Prof. Dr. K. Kanakavalli; Dr. Shyamala Rajkumar, Dr. L. Naansi Agnes; CCRS, Chennai; January, 2020
9. A Book on Uterine and Ovarian Diseases with Siddha Medicines; Vaniswari. D.S, Arunachalam. K; Dharshan Publisher; 2020



Figure 4: Journal of Research in Siddha Medicine released on 13th September, 2019 in the inauguration of SCRU at Safdarjung Hospital Campus, New Delhi



Figure 5: Release of the book Glossary on Siddha Medicinal Plants in the observance of 3rd Siddha Day on 13th January, 2020



Figure 6: Release of the book Database of Siddha Preparations for certain diseases mentioned in the enlisted Books of Drugs and Cosmetics Act, 1940 in the observance of 3rd Siddha Day on 13th January, 2020



Figure 7: Launching the website of Validation of Siddha Udal Iyal Inventory -YI for the assessment of Body Constitution (ABC): a Descriptive cross-sectional study in the observance of 3rd Siddha Day on 13th January, 2020

3.8. Outreach Activites

3.8.1. Swasthya Rakshan programme

The key objectives of the programme are

- To organize Swasthya Rakshan OPDs and Swasthya Rakshan Camps
- To create awareness about cleanliness and hygiene of the domestic environment
- To provide medical aid and related support in the adopted colonies and villages
- To document demographic information, food habits, hygiene conditions, seasons, lifestyle and disease prevalence
- To assess health status and propagation of Siddha concept of diet and extension of healthcare services



Figure 8: Consultation being provided to the patients by Dr. I. Chelladurai, Research Officer (Siddha), SMPG, Mettur Dam



Figure 9: Consultation being provided to the patients by Dr. A. Kanagarajan, Assistant Director (Siddha) S-IV, i/c, SRRI, Thiruvananthapuram

Table 29: List of peripheral institutes / units, conducting SRP

S. N.	Institute / Unit	Date of commencement	No. of Villages/ Colonies covered State-wise
1.	Siddha Central Research Institute, Chennai	18.08.2016	PSBB Matriculation Higher Secondary School, Maangadu
		06.01.2017	National Institute of Epidermiology (NIE) - Indian Council of Medical Research (ICMR), Ayapakkam
2.	Siddha Regional Research Institute, Puducherry	31.01.2017	Bahour Village, Commune Panchayat, Puducherry
3.	Siddha Regional Research Institute, Thiruvananthapuram	07.01.2017	AKG Sports and Arts Club, Pangappara (Rural), Thiruvananthapuram
		21.01.2017	Primary Health Centre, Karode (Rural), Thiruvananthapuram
4.	Siddha Medicinal Plants Garden, Mettur Dam	16.07.2017	Government Tribal Residential High School, Ramanpatti tribal hamlet, Palamalai, Salem District
5.	Siddha Clinical Research Unit, Palayamkottai	25.02.2017	Keelanatham Melur Village
6.	Siddha Clinical Research Unit, New Delhi	24.04.2017	Ramakrishna Mission Ashram, New Delhi
		10.09.2017	Nanakpura Malayalee Welfare Forum, Moti Bagh, New Delhi
		27.10.2018	Delhi Tamil Sangam, R.K. Puram
7.	Siddha Clinical Research Unit, Bengaluru	28.10.2018	Kadappa Swamy Mutt, Magadi Road, Bengaluru
		01.03.2019	Ram Ashram, Ulsoor, Bengaluru

Table 30: Beneficiaries of SRP conducted by Peripheral Institutes / Units of CCRS

S.N	Institute / Unit	Male	Female	Total
1.	SCRIC	2013	3072	5085
2.	SRRIP	609	526	1135
3.	SRRIT	595	1133	1728
4.	SMPGMD	313	276	589
5.	SCRUP	360	996	1356
6.	SCRUND	528	531	1059
7.	SCRUB	501	570	1071
Total		4919	7104	12023

3.8.2. Poshan Abhiyaan Programme

CCRS have initiated the steps for the dissemination of the message of National Nutrition Month i.e., Poshan Maah in September 2019 and Poshan Pakwada in March 2020. Poshan Abhiyaan/ pakwada activities were carried out through CCRS and its peripheral Institutes/Units to create awareness about the dietary tips mentioned in ancient classics. Knowledge dissemination about Nutrition through Siddha system of medicine was carried out among the children, pregnant women and lactating mothers.



Figure 10: Observance of Poshan Pakhwada at SCRUI, Tirupati



Figure 11: Observance of Poshan Pakhwada in Mithubai Patel Government School, Bengaluru by SCRUI, Bengaluru

Table 31: Poshan Abhiyaan activities in centres identified by CCRS Institutes / Units

S.N.	Institute / Unit	Place	Date
1.	SCRI, Chennai	Govt. Middle school, Poonamallee high road, Aminjikarai, Chennai	13.03.2020
2.	SRRI, Thiruvananthapuram	AKG Sports and Arts Club, Pangappara, Thiruvananthapuram.	13.03.2020
		Primary Health Centre, Karode, Thiruvananthapuram	

3.	SMPG, Mettur Dam	MAM- High tech School, Mettur Dam	13.03.2020
		Jawahar High School, Karumalai koodal, Mettur	
4.	SCRU, New Delhi	DTEA School, Mandir Marg, New Delhi	19.03.2020
5.	SCRU, Bengaluru	Mithubai patel government school, Gandhinagar, Bengaluru	26.09.2019
6.	SCRU, Tirupati	Thummalagunta, Tirupati	20.03.2020

Traditional food items were displayed and distributed to the public in various locations. A skit on well-balanced nutritious food was performed by the staff of CCRS Hqtrs. for the benefit of School teachers and creating awareness. Fireless cooking competition was also conducted.

4. Health Care Services

4.1. Health Care Services through OPD and IPD

The Clinical Research Programme under the Council focuses mainly on clinical evaluation of selected therapies in clinical conditions. The activities in the following areas have been carried out during the period under report:

All the cases registered in In-Patient Department (IPD) and Out-Patient Department (OPD) were screened for ADRs under the Pharmaco-vigilance programme. The hospitals functioning under the Council provides medical aid to patients at OPD level which includes General OPD, Flu like illness and special OPDs like Non-Communicable Diseases (NCD), Geriatric, Varmam & other External Therapies, Reproductive & Child Healthcare (RCH), Siddha Yogam, and Varmam Paediatric OPD.

Table 32: Beneficiaries in OPD at CCRS Institutes / Units / Co-located Units

Institutes / Units	New Patients			Old Patients			Total Patients			Grand Total
	M	F	TG	M	F	TG	M	F	TG	
SCRIC	5397	5104	0	16822	14621	14	22219	19725	14	41958
SRRIP	4732	5341	0	19114	22227	0	23846	27568	0	51414
SRRIT	729	960	0	3762	5105	0	4491	6065	0	10556
SCRUP	1468	1536	0	2891	2750	0	4359	4286	0	8645
SCRUND	4096	3230	0	0	0	0	4096	3230	0	7326
AIHAND	711	1057	0	43	15	0	754	1072	0	1826
SCRUB	5902	4267	0	0	0	0	5902	4267	0	10169
SCRUT	1872	1355	0	4052	2737	0	5924	4092	0	10016
SMSUP	424	450	0	0	0	0	424	450	0	874
Total	25331	23300	0	46684	47455	14	72015	70755	14	142784

Table 33: Beneficiaries in IPD at CCRS Institutes

Institute / Unit	No. of patients in IPD				Bed Occupancy Ratio (%)
	Admitted		Discharged		
	M	F	M	F	
SCRIC	18	9	22	9	6.18%
SRRIP	IPD not functioning				
SRRIT	33	93	33	93	3.44%
SCRUP	IPD not available				
SCRUND	IPD not available				
SCRUB	IPD not available				
SCRUT	IPD not available				
Total	51	102	55	102	9.62%

4.2. Specialty Clinics

4.2.1. Non-Communicable Diseases (NCDs)

The Non-Communicable Diseases (NCDs) like Diabetes mellitus, cardiovascular diseases, stroke and cancer were treated in the special NCD clinics of the peripheral Institutes / units of CCRS on every Mondays. The annual statistics of NCD-OPD is projected in the table below:

Table 34: Beneficiaries in NCDs Specialty Clinics at CCRS Institutes / Units

Institute / Unit	No. of patients in OPD						
	New Patients		Old Patients		Total Patients		Grand Total
	M	F	M	F	M	F	
SCRIC	96	71	4004	2928	4100	2999	7099
SRRIP	734	461	0	0	734	461	1195
SRRIT	61	46	665	534	726	580	1306
SCRUP	131	82	215	174	346	256	602
SCRUND	278	197	0	0	278	197	475
SCRUB	665	298	0	0	665	298	963
SCRUT	237	115	504	269	741	384	1125
Total	2202	1270	5388	3905	7590	5175	12765

4.2.2. Geriatric Clinics

The peripheral Institutes / Units of CCRS conducts Geriatric special OPD on every Tuesdays. The details of the beneficiaries of Geriatric specialty clinic are tabulated as under:

Table 35: Beneficiaries in Geriatric Specialty Clinics at CCRS Institutes

Institute / Unit	New		Old		Total Patients		Grand Total
	M	F	M	F	M	F	
SCRIC	295	199	6343	2775	6638	2974	9612
SRRIP	675	581	5162	3958	5837	4539	10376
SRRIT	215	237	1857	1726	2072	1963	4035
SCRUP	138	117	254	219	392	336	728
SCRUND	239	155	667	284	906	439	1345
SCRUB	845	445	0	0	845	445	1290
SCRUT	88	77	330	207	418	284	702
Total	2495	1811	14613	9169	17108	10980	28088

4.2.3. Flu-like illness Specialty OPD

The Flu-like illness specialty OPD is functioning in the peripheral institutes and units of CCRS since October, 2009. Apart from effectively treating the flu-like illness, preventive medicines were also advocated to the patients. The annual statistics of Flu-like illness specialty OPD is depicted in the table below:

Table 36: Beneficiaries in Flu-like illness Specialty Clinics at CCRS Institutes / Units

Institute / Unit	No. of patients in OPD						
	New Patients		Old Patients		Total Patients		Grand Total
	M	F	M	F	M	F	
SCRIC	4	5	8	2	12	7	19
SRRIP	24	33	74	75	98	108	206
SRRIT	4	6	18	21	22	27	49
SCRUT	61	42	0	0	61	42	103
Total	93	86	100	98	193	184	377

4.2.4. Reproductive and Child Health Care (RCH)

Reproductive and Child Health Care is a flag ship programme under the umbrella of the Government of India's (GoI) National Health Mission (NHM), to deliver the RCH targets for reduction of maternal and infant mortality and total fertility rates. SCRI, Chennai is running RCH special OPD since 8th March, 2017. This OPD specially cares for diseases of children, adolescents and women. PCOS, Infertility, Fibroid uterus and various gynaecological disorders like vaginal discharges are the areas where Siddha can offer better care. A total of 3309 patients (Male: 856, Female: 2453) were benefitted through this programme.

4.2.5. Varmam Specialty OPD

Varmam is the unique and special therapeutic entity in Siddha, which are useful in treating several neurological and musculo – skeletal diseases mostly without the intervention of internal drugs. Number of patients benefitted from Varmam special OPD during the reporting period are as under:

Table 37: Beneficiaries in Varmam Specialty Clinics at CCRS Institutes / Units

Institute / Unit	No. of patients in OPD						
	New Patients		Old Patients		Total Patients		Grand Total
	M	F	M	F	M	F	
SCRIC	11	21	5653	6932	5664	6953	12617
SRRIP	17	41	286	635	303	676	979
SRRIT	11	7	120	226	131	233	364
SCRUND	339	332	749	573	1088	905	1993
AIAND	203	408	0	0	203	408	611
SCRUB	672	721	0	0	672	721	1393
SCRUT	909	895	3341	2737	4250	3632	7882
Total	2162	2425	10149	11103	12311	13528	25839

4.2.6. Varmam Paediatric Specialty OPD

The Varmam Paediatric Special OPD functions on every Saturdays since its inception on 2nd June, 2018 at SCRI, Chennai. There is a gradual rise in the census of the children visiting RCH OPD with the conditions like Cerebral palsy (Sirakambavatham), seizure disorders (Valippunoi), neuromuscular disorders, etc. Apart from Varmam Therapy, internal medicines and external therapies like Podithimirthal, Ennaikattu and Thokkanam were also given to the affected children. In the current year, 246 male children and 73 female children were benefitted by the treatments offered.

4.2.7. Other External Therapies

The external therapeutic procedures like Thokkanam Kattuthal for orthopedic ailments, dressing for wounds in in SCRI, Chennai, Pugai for nasal polyp and Naasi rogangaal, Attai vidal for Naala-vipatha rogama, Chuttikai for kudhikaal vatham, Thokkanam, etc. are being done for the ailing persons in the Out Patient Department of SRRRI, Thiruvananthapuram. Vedhu piditthal (steam bath) has been initiated in the month of August 2019, the OPD and IPD patients are benefitted by this procedure. A total of 2077 patients (Male: 1157, Female: 920) were benefitted through external therapies.



Figure 12: Attai Vidal (Leech Therapy) in SRRI, Thiruvananthapuram



Figure 13: Vedhu Piditthal (Steam Therapy) in SRRI, Thiruvananthapuram



Figure 14: Pugai (Fumigation Therapy) in SRRI, Thiruvananthapuram



Figure 15: Chuttikai (Cauterization) in SRRI, Thiruvananthapuram

4.2.8. Siddha Yogam Specialty OPD

Siddha Yogam special OPD is functioning under Varmam, Thokkanam and Traditional Bone setting division of DCR on every Fridays from 8 a.m. to 10 a.m. Siddha Yogam OPD serves as a comparator group for any research on neuro muscular disorders. The patients were followed up regularly and their progress was recorded regularly. 804 patients (Male 375, Female 428 and Transgender 1) were benefitted by Siddha Yogam therapy.

4.3. AYUSH Wellness Clinic (AWC)

AYUSH Wellness Clinic was inaugurated by the President of India on 25th July 2016, which has a Siddha wing along with other AYUSH systems. The Clinic is catering to the medical needs of the President, officials of President's Secretariat and residents of the President's estate. The treatment includes both internal medicines and external therapies mentioned in Siddha classics. Varmam therapy is one of the unique therapies offered by this Siddha wing to patients suffering from all types of Vali (Vatha) disorders. External therapies like Thokkanam, Patru, Ottradam, Pugai, Kattu, etc., are also available for patients. The details of beneficiaries are as under:

Table 38: Beneficiaries of AWC

Institute / Unit	No. of patients in OPD						
	New Patients		Old Patients		Total Patients		Grand Total
	M	F	M	F	M	F	
AWC	2475	2102	482	412	2957	2514	5471

5. Information, Education and Communication

5.1 IEC Materials / Pamphlets

Brochures and Translites were reprinted and distributed / displayed in the National level Arogya Fairs (Comprehensive Health Mela on AYUSH) and other campaigns.

5.2 Seminars / Conferences / Workshops

Table 39: Workshop/Conference/Seminar organized by CCRS

S. N.	Name of workshop	Organizing Institute	Date
1.	Hindi Pakwada	Siddha Clinical Research Institute, Chennai	16 th September, 2019
2.	Workshop on Awareness and Hands on Training in Pharmacovigilance for ASU & H Drugs	Siddha Clinical Research Institute, Chennai	20 th February, 2020
3.	Workshop on "Scope of Integrative Medical Treatment In Clinical Practice (SIMTI)"	Siddha Clinical Research Unit-Tirupati collaborative with Sri Venkateshwara Institute of Medical Sciences, Tirupati	3 rd January, 2020

Table 40: Participation in Workshops, Training Programmes, Conferences by Officials

S. N.	Name of the Participants	Name of Seminar/Conference / Workshop / Training	Name of the Organizer	Date
1.	Dr. A Kanagarajan Dr. V. Gayathri Devi Mrs. Anitha John Dr. G.S. Lekha Dr. K.S. Maanickha Chelvi Dr. S. Aparna Dr. J.J. Annie Jasmine Swapna Dr. V.A. Rahul Mr. M. Natarajan	NABH Sensitization programme	SRRI, Thiruvananthapuram	1 st April, 2019
2.	Dr. Shyamala Rajkumar Dr. R. Meena Dr. K.S. Maanickha Chelvi Dr. B. Akila Dr. A. Lavanya	National Workshop on capacity Building of AYUSH Professionals in A-HMIS	CCRS, Chennai at SCRI, Chennai	3 rd - 4 th April, 2019

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3.	Dr. P. Sathiyarajeswaran	Introduction to Research Methodology and Bio-Statistics	The Tamil Nadu Dr. MGR Medical University, Chennai	9 th April, 2019
4.	Dr. R. Manickavasagam	National Workshop on "Health care Waste Management Environmental and Occupational Safety"	VMMC, Safdarjung Hospital - International Development Centre Foundation (IDCF)	25 th - 26 th April, 2019
5.	Dr. P. Sathiyarajeswaran	Working group meeting of International Terminology and Ayurveda and Siddha for inclusion in the ICD-11 of WHO.	RARILSD, Thiruvananthapuram	6 th - 7 th May, 2019
6.	Dr. M. Kannan	NRCeS User Meet-Summer 2019	C-DAC, Pune	24 th May, 2019
7.	Dr. P. Sathiyarajeswaran	City camp for commercialization of products	CIIC, Chennai	28 th May, 2019
8.	Mr. K. Vasudevan	Hindi Training programme	JIPMER, Puducherry	May, 2019
9.	Dr. P. Sathiyarajeswaran	Subcommittee of WHO Siddha terminologies as per the discussion of Ministry of AYUSH, Second Review meeting	CCRAS, Ministry of AYUSH, New Delhi	10 th - 11 th June, 2019
10.	Dr. R. Manickavasagam	Communication and Digital Age	CCRUM, Ministry of AYUSH	14 th June, 2019
11.	Dr. P. Sathiyarajeswaran	NAAC meeting	Sri Ramachandra University, Chennai	15 th June, 2019
12.	Dr. R. Rathinamala Dr. S. Esaivani Dr. T. Kavitha	Workshop on Basic course in Bio-statistics for Medical professionals and Non-medical researchers	ICMR - National Institute of Epidemiology, Chennai	17 th - 21 st June, 2019
13.	Dr. R. Meena Dr. P. Thenmozhi	Yoga Symposium	SCRI, CCRS, Chennai	20 th June, 2019
14.	Dr. P. Sathiyarajeswaran Dr. A. Rajendra Kumar Dr. Shyamala Rajkumar Dr. K. Sivaranjani Dr. G.S. Lekha Dr. S. Bhavani	Planning meeting of MEERYFUL, a clinical project of SCRI, CCRS, Chennai	SCRI, CCRS, Chennai	22 nd June, 2019
15.	Dr. G.S. Lekha Dr. S. Aparna Dr. V.A. Rahul	Continuous Medical Education	Siddha Medical Association of India, Thiruvananthapuram	23 rd June, 2019
16.	Dr. S. Esaivani Dr. T. Kavitha	Advanced core Life Support & First Aid Training Programme	Indian Institute of Emergency Medical sciences	23 rd June, 2019
17.	Dr. P. Sathiyarajeswaran Dr. S. Selvarajan Dr. R. Ganesan Dr. L. Mugunthan Dr. V. Aarthi Dr. Eugene Wilson Dr. C. Anbarasi Dr. K. Samraj	1 st meeting of Internal Scientific Committee of SCRUI, Tirupati pertaining to the development of Integrative Treatment Guidelines for Metabolic syndrome	CCRS, Chennai	26 th June, 2019

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18.	Dr. M. Kannan Dr. G.S. Lekha Dr. M.S. Shree Devi	Information Technology training for AYUSH Professionals	C-DAC, Ministry of Electronics - Information Technology (MeitY) at Pune.	1 st - 28 th July, 2019
19.	Dr. B. Akila	Workshop on "Cancer Prevention, Control, Screening and Early Detection"	Tata Memorial Centre, Department of Preventive Oncology, Mumbai	2 nd - 4 th July, 2019
20.	Dr. P. Sathiyarajeswaran Dr. R. Meena Dr. K.S. Maanickha Chelvi Dr. P. Thenmozhi Dr. K. Nandhagopal	National Conference on Siddha Varmam - 2019 - Exploring the Therapeutic Potentials of Siddha Varmam	The Tamil Nadu Dr. MGR Medical university, Chennai	4 th - 5 th July, 2019
21.	Dr. R. Meena	Workshop on sexual harassment for women at work place	ISTM, New Delhi	29 th - 31 st July, 2019
22.	Dr. K.N. Sunil Kumar Dr. K. Parthasarathy	Metabolomics by Mass spectrometry	C-Camp, Bengaluru	31 st July - 2 nd August, 2019
23.	Dr. P. Radha Dr. K.N. Sunil Kumar	National Seminar on "Conservation of Bio-resources of Medicinal Value: Current Scenario and way forward"	AICAR, Pusa Campus, New Delhi	13 th - 14 th August, 2019
24.	Dr. P. Sathiyarajeswaran Dr. S. Selvarajan Dr. Shyamala Rajkumar	Training meet for creation and validation of new materials with respect to Siddha System of medicine for broadcasting through TV Channels of Bhaskaracharya Institute for Space Applications and Geo-Informatics (BISAG).	SCRI, Chennai	20 th August, 2019
25.	Dr. M.S. Shreedevi Dr. S. Esaivani Dr. A. Usha	Quantitative Ethnobiology-Importance, Recent trends and opportunities	SCRI, Chennai	22 nd August, 2019
26.	Dr. I. Chelladurai Dr. Eugene Wilson	History of Varmam science in Siddha of Medicine & Exploring its Therapeutic values	NIS, Chennai.	22 nd - 23 rd August, 2019
27.	Dr. E. Nidhya	Update in Pathology-Recent Trends	Sri Manakula Vinayagar Medical College and Hospital, Puducherry.	23 rd - 24 th August, 2019
28.	Dr. R. Meena	Post conference workshop of "National conference on History of Varmam science in Siddha system of medicine and exploring its therapeutic value"	National Institute of Siddha, Chennai	24 th August, 2019

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29.	Dr. P. Sathiyarajeswaran	National Workshop on Palliative Care and its integration to AYUSH.	Mother Anna Care Centre, Nagacode, Kulasekharam, Kanyakumari District	24 th August, 2019
30.	Mr. N. Kirubakaran	Requirements of Stability study and Safety of Excipients	CDSCO under Directorate General of Health Services, MoH&FW, GoI	31 st August, 2019
31.	Dr. R. Rathinamala	Training programme on Swacch Bharat Abhiyan	ISTM, JNU (Old) campus, New Delhi.	6 th September 2019
32.	Dr. M.S. Shree Devi	NBM Technology Transfer Training Program	STEM, Hyderabad	13 th - 17 th September, 2019
33.	Dr. P. Sathiyarajeswaran	live interaction awareness programme - "Hello Ungaludan"	Doordarshan Podhigai	17 th September, 2019
34.	Dr. A. Rajendra Kumar Dr. Shyamala Rajkumar Dr. K. Sivaranjani Dr. G.S. Lekha Dr. S. Bhavani Dr. A. Faridha Dr. J.J. Annie Jasmine Swapna Dr. R. Kiruthika	Training and Planning meeting of MEERYFUL, a clinical project of SCRI, CCRS, Chennai	SCRI, Chennai	19 th September, 2019
35.	Dr. K.N. Sunil Kumar	Training programme on "Forest Resource Management and Sustainable for Bioprospecting values"	Vivekananda College of Arts - Science for women, Tiruchengode	19 th - 21 st September, 2019
36.	Dr. R. Meena	Meeting for review of the book "A Textbook on Varmam Science" as an external expert.	NIS, Chennai	24 th September, 2019
37.	Dr. P. Sathiyarajeswaran Dr. S. Selvarajan Dr. R. Ganesan Dr. L. Mugunthan Dr. V. Aarthi Dr. Eugene Wilson Dr. C. Anbarasi Dr. K. Samraj	Integrative Guidelines Development 2 nd Meeting on Internal Scientific Committee of SCRUTirupati	CCRS, Chennai	25 th September, 2019
38.	Dr. R. Manickavasagam Dr. B. Akila Dr. B. Vikesh	Rashtriya Poshan Maah. Importance of Nutrition during Ante-natal care, Post-natal care & Lactating Phase, Importance of Nutrition for the optimal growth of children	CCRUM, Ministry of AYUSH	27 th September, 2019
39.	Dr. M. Kannan	Training on PFMS Update	State Project Management Unit Shastri Bhavan, Chennai	3 rd - 4 th October, 2019

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40.	Dr. P. Sathiyarajeswaran Dr. K.N. Sunil Kumar	61 st PSC meeting for establishment of RRDR	NMPB, New Delhi	10 th October, 2019
41.	Dr. K. Parthasarathy	1 st 'National Biomedical Research Competition', held on 87th birth anniversary of Dr. A.P.J. Abdul Kalam	All India Institute of Medical Sciences (AIIMS), Rishikesh, Utharkand.	15 th October, 2019
42.	Dr. P. Sathiyarajeswaran	Training meet for creation and validation of new materials with respect to Siddha System of medicine for broadcasting through TV Channels of Bhaskaracharya Institute for Space Applications and Geo-Informatics (BISAG).	SCRI, Chennai	15 th October, 2019
43.	Dr. B. Akila Dr. B. Vikesh	"Basic Medical Varmology Workshop" Level -I	Thirumoolar Varmalogy Institute, Tamil Nadu at Ayush Auditorium, New Delhi	18 th - 20 th October, 2019,
44.	Mr. K. Vasudevan	Workshop on Pay fixation	ISTM, New Delhi	21 st - 23 rd October, 2019
45.	Dr. S. Selvarajan	Training Programme on "Science Administration and Research Management"	Administrative Staff College of India, Hyderabad	4 th - 15 th November, 2019
46.	Dr. M. Kannan	40 th Annual conference of Indian association of Biomedical Scientist	Chettinad Hospital - Research Institute, Chennai	31 st October - 2 nd November, 2019
47.	Dr. S. Esaivani	<ul style="list-style-type: none"> • Introduction to measurement, principles of psychometric measurements • Validity of measuring scales, Reliability of measuring scales 	SCRI, Chennai	7 th November, 2019
48.	Dr. M. Kannan Dr. R. Rathinamala Dr. R. Aravinda Senbagaraman	Preconference on Pharmacovigilance (AYUSHSURAKSHA 2019)	Institute of Post Graduate Teaching and Research in Ayurveda, Gujarat	8 th November, 2019
49.	Dr. P. Sathiyarajeswaran Dr. M. Kannan Dr. R. Manickavasagam Dr. R. Rathinamala Dr. R. Aravinda Senbagaraman Dr. N. Vimal	National conference on Pharmacovigilance (AYUSHSURAKSHA 2019)	Ayurveda University, Jam Nagar, Gujarat.	9 th - 10 th November, 2019
50.	Dr. M. Harihara Mahadevan	One day training programme in PFMS	State Project management Unit-Karnataka, PFMS, Ministry of Finance, Bengaluru	11 th November, 2019

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51.	Dr. A. Kanagarajan Dr. G.S. Lekha Mr. N. Sathya Prakash	Training on Public Financial Management System (PFMS)	Kerala State Public Financial Management System, Thiruvananthapuram	19 th November, 2019
52.	Dr. P. Sathiyarajeswaran Dr. M. Kannan	Seminar on Pharmacovigilance on ASU & H Drugs: Emerging trends and Future prospects	Regional Research Institute of Unani Medicine (CCRUM) Chennai	20 th November, 2019
53.	Mr. R. Rohin Kumar Mr. A. Manoj Mr. V. Naveen Kumar	Workshop on Laboratory Animal Handling and Management for research scholars	TANUVAS, Chennai	26 th - 28 th November, 2019
54.	Dr. K. Samraj	AYUSH for future health challenges: Strengthening trans-disciplinary network for research	Savithribhai Pule Pune University, Pune.	28 th - 30 th November, 2019
		Workshop on Meta-Research and Evidence Based Medicine	Savithribhai Pule Pune University, Pune.	1 st December, 2019
55.	Dr. M. Kannan	Oneday Technology Awareness program on Nano-Drugs Formulation of herbal extracts using tFOCUS System	CSIR-CSIO Chennai centre Tharamani	2 nd December, 2019
56.	Dr. P. Sathiyarajeswaran Dr. Eugene Wilson	WHO working Group meeting on Standard Terminology Documents of Siddha	Institute for Post Graduate Teaching & Research in Ayurveda, Gujarat Ayurveda University, Jamnagar	2 nd - 5 th December, 2019
57.	Dr. B. Akila	An Integrative Oncological approach through Siddha Pre-Conference Event of ICIO (International Conference of Integrative Oncology)	Global Homeopathy Foundation - CCRH, AYUSH Auditorium, New Delhi	8 th December, 2019
58.	Dr. V. Gayathri Devi Mrs. Anitha John Dr. V.L. Reena Mr. M. Natarajan	National Seminar on "Biology for Life 2K19"	Avinashalingam Institute for Home Science - Higher Education for Women, Coimbatore, Tamil Nadu	11 th December, 2019
59.	Dr. M. Kannan Dr. Eugene Wilson	1 st Workshop on Pulse Diagnosis of Siddha system	The Tamil Nadu Dr. MGR Medical University, Chennai	12 th December, 2019
60.	Dr. K. Parthasarathy	Scope and Challenges in the Standardization of ASU drugs	National Institute of Siddha (NIS), Chennai	16 th December, 2019
61.	Dr. M. Kannan	AYUSH Grid Technical Committee Meeting of A-HMIS with BEL, Bengaluru	AYUSH Bhawan, Ministry of AYUSH, New Delhi	18 th December, 2019
62.	Mrs. Anitha John Dr. K.S. Maanickha Chelvi	Training programme on PFMS	Spencer Building, Canara Bank, Spencer Jn., Palayam, Thiruvananthapuram	18 th December, 2019

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63.	Dr. Shyamala Rajkumar Dr. M. Kannan Dr. V. Ananthalakshmi Dr. R. Meena Dr. M.S. Shreedevi Dr. P. Thenmozhi Dr. S. Esaivani Dr. T. Kavitha	National Seminar on siddha Palliative Care – Pre Event of 3 rd Siddha Day	SCRI, Chennai	20 th December, 2019
64.	Dr. R. Manickavasagam Dr. B. Vikesh Dr. K.G. Padmavathy	Conference on Environmental Safety and Concerns: its Impact on Health	CCRH, New Delhi	21 st December, 2019
65.	Dr. S. Selvarajan Mr. K. Vasudevan	National Seminar on Art of Healthy Life style through Siddha Dietetics	SRRI, Puducherry	22 nd December, 2019
66.	Dr. S. Esaivani	Three days workshop on Statistical package for social science and analysis of moment structure	Institute for statistics - analytical Research	27 th - 29 th December, 2019
67.	Dr. Gayathri Gunalan	A four day training programme in “IA-QMS (Internal Audit - Quality Management Systems)	Foundation for Quality India, Bangalore and Sudar Diagnostic Centre, Chennai	26 th - 29 th December, 2019
68.	Dr. R. Rathinamala	Seminar on New avenues of Siddha Research and Practice in the Modern Data Centric world	National Institute of Siddha, Chennai.	28 th December, 2019
69.	Dr. P. Sathiyarajeswaran Dr. R. Meena Dr. K. Samraj Dr. K. Nandhagopal Dr. S. Radha Dr. S. Rajalakshmi Dr. K. Arunachalam	National Workshop on Scope of Integrative Medical Treatment in Clinical Practice (SIMTI-2020)	Sri Padmavathi Auditorim, SCRUI - SVIMS, Tirupati.	3 rd January, 2020
70.	Dr. M. Harihara Mahadevan	105 th Indian science Congress conference.	Indian Science Congress & Agricultural University, Bengaluru.	4 th - 7 th January, 2020
71.	Dr. A Kanagarajan Dr. V. Gayathri Devi Mrs. Anitha John Dr. G.S. Lekha Dr. K.S. Maanickha Chelvi Dr. S. Aparna Dr. Ghanthi Kumar Dr. V.L. Reena Mr. M. Natarajan	National Seminar & Workshop on ‘External Therapies in Siddha System of Medicine’ (EXTSSM - 2020)	Siddha Regional Research Institute, Poojappura, Thiruvananthapuram	7 th January, 2020
72.	Dr. P. Sathiyarajeswaran	National Seminar on Integrated Approaches in Siddha system of Medicine	SCRUI, New Delhi.	9 th January, 2020

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73.	Dr. B. Akila Dr. K.G. Padmavathy Dr. B.K. Priya Dr. M. Subathra	National Conference on "Expanding Breast Cancer Care for Indian women	The Week Connect	14 th January, 2020
74.	Dr. S. Esaivani	Medical Writing Workshop for Doctors & Medical PGs	Events High, Resident Tower, T. Nagar, Chennai	20 th - 28 th January, 2020
75.	Dr. S. Vinayak	One day workshop on Atomic Absorption Spectroscopy (AAS) & its Applications	SRM Institute of Science and Technology	22 nd February 2020
76.	Dr. V.L. Reena Mr. M. Natarajan	Training programme on "Characterization Techniques in the Standardisation of Herbometallic preparations"	Centre for Advanced Research in Indian System of Medicine, SASTRA University, Thanjavur	22 nd - 24 th January, 2020
77.	Dr. M.S. Shree Devi	DOORMAN APP - IT Award for excellence in AYUSH	Ministry of AYUSH, New Delhi	24 th January, 2020
78.	Dr. K. Arunachalam	State level Technical Workshop on Intellectual Property Rights (IPR -2020)	PSG College of Arts & Science - Department of science & technology, Govt. of India, Coimbatore	28 th - 29 th January, 2020
79.	Dr. M. Kannan	System information Gathering meeting of AYUSH Grid with M/S E&Y LLP	SCRI, Chennai	30 th January, 2020
80.	Dr. E. Nidhya	AIICME 2020 - 25 th ICP- AIPNA, International Pathology Conference	B.J. Medical College, Ahmedabad, Gujarat.	31 st January - 2 nd February, 2020
81.	Dr. R. Manickavasagam	NIRALYAM 2020	Student Association, Govt. Siddha Medical College, Tirunelveli	1 st February, 2020
82.	Dr. S. Bhavani Dr. T. Kavitha	Medical Writing Workshop	Events High	2 nd February, 2020
83.	Dr. T. Kavitha	NABH accreditation training for AYUSH professionals	National Institute of Siddha, Chennai	3 rd February, 2020
84.	Dr. B. Akila	2 nd World Cancer Congress	Mahatma Gandhi University of Medical Sciences - Technology (MGUMST), Jaipur, Cancer Institute, Chennai, Ichan School of Medicine at Mount Sinai, New York - National Institute of Immunology, New Delhi.	3 rd - 5 th February, 2020

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85.	Dr. P. Radha Mr. R. Nagaraj	National Workshop on "Herbal Medicine for Entrepreneurship (Herbal 2020) & Medicinal Plants and their product exhibition"	PG and Research Department of Botany, Kandaswami Kandars College, Velur, Namakal District,	5 th February, 2020
86.	Dr. G.S. Lekha	World's largest 4 th International Conference on Integrative Oncology 2020 (ICIO 2020)	Global Homeopathy Foundation at Kochi, Kerala	8 th - 9 th February, 2020
87.	Dr. B. Akila	Workshop on "Integrative approach to management of cancer" - Jeevaneeyam 2020 - Occasion of World Cancer Day 2020	AIIA, National Institute of Cancer Prevention - Research (NICPR) - Centre of Integrative Oncology	10 th - 11 th February, 2020
88.	Dr. P. Sathiyarajeswaran	Traditional Medicine - Modern Approaches for affordable and assessable healthcare	DST at Amity University, Noida.	11 th February, 2020
89.	Dr. R. Manickavasagam Dr. B. Akila Dr. B.K. Priya Dr. B. Vikesh Dr. K.G. Padmavathy Dr. M. Subathra Dr. N. Vimal	International Conference "Unani Medicine Towards Achieving the sustainable Development Goal (SDG-3) of Good Health and wellbeing"	CCRUM, New Delhi	12 th - 13 th February, 2020
90.	Dr. R. Meena	Workshop on Artificial Intelligence for Health Care	IIT, Madras	13 th February, 2020
91.	Dr. P. Radha	Hindi Workshop	Town Official Language Implementation Committee, Salem	18 th February, 2020
92.	Dr. C. Udhayavani Mr. K.C. Habeemon	National conference, 'Promotion of livelihood & Entrepreneurship through Medicinal and aromatic plants'	Vivekananda College of Arts and Science for Women (Autonomous), Thiruchengode, Salem District.	18 th - 19 th February, 2020
93.	Dr. R. Meena Dr. S. Esaivani Dr. T. Kavitha	Workshop on Awareness and Hands on training in pharmacovigilance for ASU and H drugs	SCRI, Chennai	20 th February, 2020
94.	Dr. V. Gayathri Devi	TOLIC meeting (Rajbhasha Parv)	TOLIC, Thiruvananthapuram	20 th February, 2020
95.	Dr. K. Samraj	International Conference on Standardization of Diagnosis and Terminologies in Ayurveda, Unani, and Siddha Systems of Medicine-ICoSDiTAUS-2020.	Ministry of AYUSH Govt. of India at New Delhi	21 st - 28 th February, 2020

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96.	Dr. P. Sathiyarajeswaran	International Conference on Standardisation of diagnosis and terminologies in Ayurveda, Unani and Siddha systems of Medicine (ICoSDiTAUS 2020)"	World Health Organisation (WHO) at India Habitat Centre, Lodhi Road, New Delhi.	24 th - 26 th February, 2020
97.	Dr. K. N. Sunil Kumar	GeM Training Session	Axis Bank, Chennai	25 th February, 2020
98.	Dr. M. Harihara Mahadevan Dr. R. Manickavasagam Dr. B. Vikesh Dr. N. Vimal	International Conference on Standardisation of Diagnosis and Terminologies in Ayurveda, Unani and Siddha systems of medicine	WHO & Ministry of AYUSH, New Delhi	25 th - 26 th February, 2020
99.	Dr. S. Rajalakshmi Dr. K. Arunachalam	Workshop on Awareness and Hands-on Training in Pharmacovigilance for ASU & H Drugs	CCRS, Ministry of AYUSH, Govt. of India at Chennai	27 th February, 2020
100.	Dr. Shyamala Rajkumar	Training programme on Right to information Act - 2005	Institute of Secretariat training and management, New Delhi	27 th and 28 th , February, 2020
101.	Dr. P. Sathiyarajeswaran	Workshop for Developing Standards for various posts related in Siddha on the request made by "Healthcare Sector Skill Council"	NIS, Chennai	4 th March, 2020
102.	Mr. K. Vasudevan	Training programme on Managerial supervisory skills	ISTM, New Delhi	4 th - 6 th March, 2020
103.	Dr. V. Ananthalakshmi	International workshop on Geriatric emergency Medicine	Dr Rela Institute - Medical centre	6 th March, 2020



Figure 16: A-HMIS Workshop on 3rd to 4th April, 2019 at SCRI, Chennai



Figure 17: Participation of CCRS in ICOSDiTAUS 2020 at New Delhi

Table 41: Presentations in Seminars / Conferences / Symposia

S. N.	Name of the Author	Title of the paper/ Abstract published	Name of Conference / Seminar	Date
1.	Dr. P. Sathiyarajeswaran	NABH assessment procedures	NABH Sensitization programme, SRRI, Thiruvananthapuram	1 st April, 2019
2.	Dr. M. Kannan	A-HMIS software Training and demonstration	National Workshop on Capacity Building of AYUSH professionals in A-HMIS (NWCBA-AHMIS) By CCRS, Chennai.	3 rd - 4 th April, 2019
3.	Dr. M. Kannan	Pharmacovigilance, Intellectual Property Rights (IPR) and TKDL	Research Methodology and Biostatistics for UG students by The Tamil Nadu Dr. MGR Medical University, Chennai	10 th April, 2019
4.	Dr. M. Kannan	A-HMIS Interim Review	A-HMIS Development Team with OSD-AYUSH Grid, Ministry of AYUSH, Govt. of India, SCRI, Chennai	16 th May, 2019
5.	Dr. M. Kannan	Yoga - Overview	Symposia on International Day of Yoga -2019 Central Council for Research in Siddha, Ministry of AYUSH, Govt. of India	21 st June, 2019
6.	Dr. G.S. Lekha	Research Methodology - An overview	Siddha Medical Association of India (SIMAI), Thiruvananthapuram	23 rd June, 2019
	Dr. S. Aparna	Lab diagnosis - An overview		
	Dr. V.A. Rahul	Hands of training on Attaivald (Leech Therapy) and Importance of Pharmacovigilance for ASU & H Drugs		
7.	Dr. K.S. Maanickha Chelvi	Physio Chemical Standardisation of Varmam Medicine- Athimathura Chooranam	National Conference of Siddha Varmam 2019 in The Tamilnadu Dr. MGR Medical university, Chennai	4 th - 5 th July, 2019
8.	Dr. K. Nandhagopal	Effectiveness of Varmam for the pain quality management assessed by PQAS among the patient attending SCRUTirupati: A case series	Exploring the Therapeutic potentials of Siddha Varmam at Chennai.	5 th July, 2019
9.	Dr. S. Esaivani	Role of diet and Nutrition in Ovulatory Infertility (Pen maladu)	AYUSH-2019 medical exhibition, Maditssia hall, Madurai.	16 th August, 2019

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10.	Dr. Eugene Wilson	Research Leads from Siddha System of Medicine	Engineering Solution to Clinical Needs: Research and Innovation organized by the Department of Biomedical Engineering, Rajalakshmi Engineering College, Chennai	20 th August, 2019
11.	Dr. S. Shunmugaram	Effectiveness of Therapeutic Varmam manipulation in Thandaga Vaatham (Lumbar Spondylosis) - A Case series.	National Conference on "History of Varmam Science in Siddha System of Medicine and Exploring its Therapeutic Values organized by National Institute of Siddha, Chennai.	22 nd - 23 rd August, 2019,
12.	Dr. M. Subhathra	Examination of Feaces in Siddha - Oral Presentation	World AYUSH Expo 2019 and Arogya-Mumbai	24 th - 25 th August, 2019
	Dr. B.K. Priya	The Symptomatology and Siddha Diagnostic Methodology of the Disease Vanni Pitham		
13.	Dr. S. Ghanthi Kumar	Medicinal Plant Wealth of Thenkalam Village with special reference to Ethnobotany	National seminar on "Impact of microbes on Food and Health"	29 th August, 2019
14.	Dr. M. Manokari	Tissue culture and foliar micromorphological studies in <i>Thunbergia erecta</i> (Benth.) T. Anderson	AICTE sponsored International Conference on Bio-molecular and Biotechnological Aspects of Medicinal Plants organized by L.M. College of Pharmacy, Ahmadabad.	18 th - 19 th October, 2019
15.	Dr. R. Manickavasagam	Management of Air Pollution through Siddha system	Environmental Safety and concerns - its impact on Health for AYUSH on Preservation of Environments, CCRH, New Delhi	25 th October, 2019
16.	Dr. K.N. Sunil Kumar	Biodiversity of India - Hub for natural resources for medicine	Biodiversity Act 2002 - Training program Vivekanandha College for Women, Tiruchengode	29 th - 31 st October, 2019
17.	Mr. N. Kirubakaran	Design and Development of Synergistic Siddha formulation using (Thiriphala) as Pharmaceutical Binder Design and Development of Synergistic Siddha formulation using	40th Annual Conference of Indian Association of Biomedical Scientists (IABMS)-Biomedical Research and Innovations to Enhance Quality of Life Chettinad Hospital & Research Institute (CHRI) Kelambakkam.	1 st - 2 nd November, 2019

		(Thiriphal) as Pharmaceutical Binder.		
18.	Dr. M.S. Shree Devi	Design and development of Siddha Herbo- Mineral formulation for Mercury chelation: SCRI - KTM		
19.	Dr. P. Sathiyarajeswaran	Anti-cancer activity and molecular mechanism of Siddha poly herbal formulation (Parangipattai Chooranam)		
20.	Dr. M. Kannan	Validation of Siddha <i>Udallyal</i> Inventory - YI for the Assessment of Body Constitution (ABC): a descriptive cross-sectional study		
21.	Mr. K.C. Habeemon	GS specific activity, Nitrogen assimilation and Biomass production in <i>Santalum album</i> L. grown with selected primary hosts	42 nd All India Botanical conference and National symposium on Innovations and Inventions in Plant Science Research., PG and Research Department of Botany, University of Calicut, Kerala.	6 th - 8 th November, 2019.
22.	Mrs. M. Rubeena	1. Medicinal Plant Galls Used in Siddha System of Medicine 2. Phytochemic al Evaluation and In vitro Antioxidant Studies of Selected Species of <i>Cissus</i> from South India		
23.	Dr. P. Sathiyarajeswaran	SiddAR (Siddha Initiative for Documentation of Drug Adverse Reaction): Android Mobile App for AYUSH Pharmacovigilance Programmes: An Efficient and Easy Way of Assessing ADR	National conference on pharmacovigilance" organized by IPGT & RA, Jam nagar.	9 th - 10 th November, 2019
24.	Dr. M.S. Shree Devi	"DOOR MAN" (Documentation of Objectionable advertisement and		

		Reporting under Magic and Remedies Act Notification) Android Mobile App for AYUSH Magical Remedial Act Programmes: An Efficient and Easy Way of Assessing Magic Remedies Act		
25.	Dr. L. Juliet	Serankottai induced contact dermatitis during Suthi process in Siddha –A case report		
26.	Dr. M. Kannan	Future Prospects of Pharmacovigilance of ASU drugs	Seminar on pharmacovigilance of ASU drugs- Emerging trends and future prospects by Regional Research Institute of Unani Medicine (CCRU, Ministry of AYUSH, Govt. of India) Royapuram, Chennai	20 th November, 2019
27.	Dr. S. Ghanthi Kumar	Phytochemical and Antibacterial activity of selected Seaweeds"	National Conference on "Emerging trends in Algae"	28 th - 29 th November, 2019
28.	Dr. K. Samraj	AYUSH for future health challenges: Strengthening trans-disciplinary network for research	AYUSH for future health challenges: Strengthening trans-disciplinary network for research.	30 th November, 2019. Pune.
29.	Dr. B. Chitra	An Overview of Siddha Conceptual Approach for Old age Disorders	17 th National Geriatric conference organised under the banner of Indian Academy of Geriatrics hosted at Christian Medical College, Vellore.	6 th - 7 th December, 2019
30.	Dr. B. Akila	"An Integrative Oncological approach through Siddha"	Pre-Conference Event of ICIO, Global Homeopathy Foundation and CCRH, Ayush Auditorium. New Delhi	8 th December, 2019
31.	Dr. V. Gayathri Devi	Anticarcinogenic activity of Alcohol extract and Isorhamnetin-3-Glucoside from <i>Cochlospermum religiosum</i> (Linn.) Alston in comparison with Cisplatin	National Seminar on "Biology for Life 2K19" organized by Avinashalingam Institute for Home Science and Higher Education for Women, Coimbatore, Tamil Nadu	11 th December, 2019
32.	Mrs. Anitha John	Identification of <i>Ruta graveolens</i> Linn. (Leaf) by Chromatographic		

		and Spectroscopic Methods		
33.	Dr. V. L. Reena	Green Synthesised Ferric Oxide Nanoparticles For Water Remediation;		
34.	Mr. M. Natarajan	Evaluation of Chemico-Botanical and Chromatographic properties of <i>Coccinia indica</i> from Cucurbitaceae family		
35.	Dr. S. Ghanthi Kumar	Environmental Impact of Invasive Alien Plant <i>Senna tora</i> (L.) Roxb.		
36.	Dr. S. Ghanthi Kumar	Conservation of a medicinal plant - <i>Phylla nodiflora</i> through tissue culture		
37.	Dr. Eugene Wilson	Overview of nutritional disorders in Siddha system of medicine	Role of Siddha Medicine in the Management of Nutritional disorders - An Integrative Approach” organized by SCR, Bengaluru and The University of Trans Disciplinary Health Sciences and Technology, Bengaluru	13 th December, 2019
38.	Dr. M. Kannan	A-HMIS Structure, flow and concepts and Demonstration	AYUSH Grid Technical Committee Meeting of A-HMIS with BEL, Bengaluru	18 th December, 2020
39.	Dr. M. Kannan	Literary Evidences for Siddha Palliative Care	National Seminar on siddha Palliative Care - Pre-Event of 3 rd Siddha Day	20 th December, 2019
40.	Dr. V. Aarthi	Narcotic usage Renaissance - need of the hour		
41.	Dr. P. Sathiyarajeswaran	Design of solid tablet oral dosage form and its quality control assessment of Urai mathirai Siddha formulation for immuno modulation in paediatric community.	71 st Indian Pharmaceutical Congress, 2019 with its theme “Pharma Vision 2030: Health care system- Role of Regulators”	20 th - 22 nd December, 2019
42.	Dr. V. Aarthi	Peptic ulcer healing mechanism of Pooneeru Chunnam-A crown of Siddha medicine	71 st IPC by Sri Ramachandra Institute of Higher Education and Research, Chennai	21 st December, 2019

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43.	Dr. S. Rajalakshmi	An Integrative approach of siddha and Bio-Medicine: A census Report of Siddha Clinical Research Unit-Tirupati	Third Siddha day 2020 and National Conference on Siddha Science for Preventive and Promotive Health, Amma Arangam, Chennai	13 th January, 2020.
44.	Dr. B. Akila	"Siddha in Breast Cancer" at the Panel Discussion Session on Traditional Medicine	Seminar on "Expanding Breast Cancer Care for Indian Women", India Inhabitant Center, New Delhi	14 th January, 2020
45.	Dr. M. Kannan	IT Developments & Infrastructure	System information Gal meeting of AYUSH Grid with E&Y LLP, SCRI	30 th January, 2020
46.	Dr. R. Manickavasagam	Naveena Siddha Maruthuva Varalaru	NIRALYAM 2020, Student association, Govt. Siddha Medical College, Tirunelveli	1 st February, 2020
47.	G. S. Lekha	Cancer - Siddha Therapeutic approach	World's largest 4 th International Conference on Integrative Oncology 2020 (ICIO 2020) organised by Global Homeopathy Foundation at Kochi, Kerala	8 th - 9 th February, 2020
48.	Dr. P. Radha	Traditional Knowledge on Medicinal plants used for dermatological disorders in Tiruppur District, Tamil Nadu.	National conference on "Promotion of Livelihood & Entrepreneurship opportunity through medicinal and Aromatic Plants", Vivekananda College of Arts and Science for Women (Autonomous), Thiruchengode, Salem District	18 th - 19 th February, 2020
49.	Mr. K.C. Habeemon	An account of the nutraceutically important medicinal plants used in the traditional system of medicine - The Siddha.		
50.	Dr. S. Vinayak	Young Scientist Award on the theme Agriculture and Phytochemistry	International Conference on Recent Trends in Bio nanotechnology, Energy and Environment (ICBEE - 2020) by B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai and University of Missouri with support of Tamilnadu State Council for Science and Technology	18 th - 19 th February, 2020
51.	Dr. M. Kannan	Pharmacovigilance - Future Scope	Workshop on Awareness and Hands on Training in Pharmacovigilance for ASU & H Drugs, SCRI	20 th February, 2020

52.	Dr. M. Manokari	Somatic Embryogenesis in <i>Euphorbia hypericifolia</i> L. - A sustainable protocol for an unexplored medicinal plant	International Conference on Interdisciplinary Approaches to Environment, Ecosystems & Sustainable Development ICIAEESD - 2020. Jointly organized by KMGIPGSR, NALSA, Pondicherry University.	22 nd February, 2020
53.	Dr. K. Nandhagopal	Medicinal uses of marine products in siddha system of medicine- A short review	National Seminar on Dravidian Herbal Heritage and Modern Clinical Systems [NSDHHMCS - 2020], Kuppam, A.P.	25 th February, 2020
54.	Dr. S. Esaivani	Awareness presentation on Management of Menstrual disorders through Food and life style modifications	Womens's day celebration, SCRI Auditorium	7 th March, 2020
55.	Dr. T. Kavitha	Management of Anemia (Paandu) through Siddha system		
56.	Dr. K.N. Sunil Kumar	Occurrence of White Flowered <i>Hyptis suaveolens</i> and <i>Martynia annua</i>	National conference on Conserving Nature for Generating Livelihood Organised by Department of Botany, Govt. Arts College for Men, Nandanam, Chennai during	12 th - 13 th March, 2020

Table 42: Participation in Camp / Others by the Officials

S. N.	Name of the Officials	Name of Mela/ Exhibition / Camp	Place	Duration
1.	Dr. B. Akila	Mass Yoga Camp - A part of International Yoga Day	Cantonment General Hospital, Delhi	21 st June, 2019
2.	Dr. R. Thilagavathi	National Level Arogya Fair	Navi Mumbai	22 nd August, 2019
3.	Dr. B. Vikesh Dr. G. Padmavathy	Poshan Abhiyan (National Nutrition Mission)	SCRU, New Delhi	18 th September, 2019
4.	Dr. B. Akila Mr. R. Ramakrishnan Dr. B. Vikesh Mr. Anil Kumar Sharma	Conducted Swachhta Pakhwada Drawing Competition organized by Siddha Clinical Research Unit	DTEA School, Pusa Road, New Delhi	30 th October, 2019
5.	Dr. S. Saravanan Dr. B. Akila	Health Awareness and Checkup Camp Expo at Parliament Annexe for the Hon'ble MPs	Central Government Health Scheme (CGHS) in Coordination with the Lok Sabha Secretariat	5 th - 6 th December, 2019
6.	Dr. R. Manickavasagam Dr. B. Vikesh	Ayyappan pooja OPD Camp	B Block nanakpura, Motibagh.	14 th December, 2019

7.	Dr. V. Aarthi Dr. Eugene Wilson	Herbal exhibition and medical camp	SMPG, Mettur Dam	28 th December, 2019
8.	Dr. K. Sivaranjani	Pre-Siddha day Special camp	North Ariyanagipuram	31 st December, 2019
9.	Dr. P. Elankani	Pre-Siddha day Special camp	Moontradaippu	6 th January, 2020
10.	Dr. S. Bhavani	Pre-Siddha Day event - Free Siddha awareness medical camp	Madhavaram milk colony Govt. Hospital, Siddha wing on	10 th January, 2020
11.	Dr. S. Esaivani	Pre Siddha day awareness programme	Vellore	11 th January, 2020
12.	Mrs. Anitha John Mr. A. Arshad Ali Dr. D. Ghanthi Kumar Dr. V.A. Rahul Mr. J. Jose Christopher Mr. N.R. Sivaraj	Exhibition "Darshan Arogya Wellness Expo-2020"	Universal Yoga Consciousness (UYCON), Yoga Bhavan, Ollur, Thrissur, Kerala.	14 th - 18 th February, 2020
13.	Dr. B.K. Priya	Womens Day Awareness Programme	SCRU, New Delhi	5 th March 2020
14.	Dr. S. Esaivani Dr. T. Kavitha	Nutrition Awareness programme	Govt. Middle school, Aminjikarai, Chennai	13 th March, 2020

Table 43: Lectures delivered in Arogya Mela / Expo / Awareness programme by the Officers

S. No	Name of the Officers	Topic of the Lecture	Name of Mela / Exhibition / Camp / Awareness Programme	Date
1.	Dr. M. Harihara Mahadevan	Management of Non communicable diseases with Siddha medicines and Yoga	Pre-yoga day event by Vivek Nagar, Bengaluru	16 th June, 2019
2.	Dr. R. Thilagavathi	Management of Diabetes with Siddha medicines and Yoga.		
3.	Dr. C. Eswaran	Introduction to NCDs		
4.	Dr. K.P. Vanmathi	Prevention and management cancer, hypertension and hypothyroidism with Siddha medicines and Yoga therapy.		
5.	Dr. K.S. Maanickha Chelvi	Introduction of Siddha system and Importance of Yoga in daily life	IDY-Medical camp for Prisoners at SRRI, Thiruvananthapuram	20 th June, 2019
6.	Dr. K. Sivaranjani	Yoga for Heart	International Day of Yoga in CME Programme	21 st June, 2019
7.	Dr. P. Sathiyarajeswaran	Nilavembu Kudineer - A Review	Maditssia AYUSH 2019 at Maditssia Hall, Madurai.	17 th August, 2019
8.	Dr. P. Sathiyarajeswaran	"Kitchen culinary and its protective nutrients" followed by a hands on	Workshop on 'Food Preservation and Adulteration' at	21 st August, 2019

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		training on phytochemical analysis.	Sathyabama Institute of Science - Technology, Chennai	
9.	Dr. B. Chitra	Review of Siddha Kayakarpam therapy in the Treatment of Non Communicable Diseases	AROGYA Mela, CIDCO Exhibition Hall, Vashi, Navi, Mumbai.	22 nd August, 2019
10.	Dr. R. Thilagavathi	Management of Women's health through Siddha system of Medicine.		
11.	Dr. R. Meena	Varmam in pain management	Post conference workshop of "National conference on History of Varmam science in Siddha system of medicine and exploring its therapeutic value" at NIS, Chennai	24 th August, 2019
12.	Dr. R. Thilagavathi	Siddha system of Medicine with particular reference to Nilavembu Kudineer chooranam.	CME on Diabetic foot at Govt. Ayurveda College auditorium, Bengaluru.	19 th September, 2019
13.	Dr. K.S. Maanickha Chelvi Dr. S. Ghanthi Kumar	Effects of plastic usage in Human health	Anti Plastic Awareness Drive on Ban on single use of plastic at Siddha Regional Research Institute, Thiruvananthapuram	23 rd September, 2019
14.	Dr. P. Sathiyarajeswaran	Scope and Challenges of integration of AYUSH therapies	40th Annual Conference of Indian Association of Biomedical Scientists, Chettinad Hospital and Research Institute, Kelambakkam, Kanchipuram District.	2 nd November, 2019
15.	Dr. S. Selvarajan	Herbal Science	Science city, Chennai	26 th November, 2019
16.	Dr. V.A. Rahul	Pharmacovigilance and its Significance in ASU&H Drugs	National Pharmacovigilance Awareness Programme at Siddha Regional Research Institute, Thiruvananthapuram	26 th November, 2019
17.	Dr. M. Harihara Mahadevan	National level programs on Nutritional disorders and Integration of Siddha Medicine – A Roadmap	National Seminar on 'Role of Siddha medicine in the management of nutritional disorders - An Integrative approach'.	13 th December, 2019

18.	Dr. K. Sivaranjani	Siddha management of Neurological disorders	National level Arogya Fair Banaras Hindu University, Varanasi, Uttarpradesh	19 th December, 2019
19.	Dr. R. Shakila	Quality control of herbal drugs Standardization of Siddha drugs	2 nd International Arogya by AYUSH & FICCI, Varanasi, Uttar Pradesh	20 th December, 2019
20.	Dr. K. Sivaranjani	Siddha in Dermatology	National level Arogya Fair Banaras Hindu University, Varanasi, Uttarpradesh	21 st December, 2019
21.	Dr. S. Selvarajan	Clinical and Commercial aspects of Siddha Medicine in Indian Sub-continent	Siddha day celebration 2019 organized by CSIR-TKDL PoP at CSIR-CLRI, Chennai	27 th December, 2019
22.	Dr. B. Akila	Cancer awareness	All India Institute of Ayurveda, New Delhi	7 th March, 2020

Table 44: International Visit by Officers

S. No.	Name of the Officers	Name of the Event/Organizer	Name of the Country visited	Date
1.	Dr. A. Rajendra Kumar	9 th International Conference on Traditional and Complimentary Medicine (INTRACOM)	INTRACOM, Malaysia	3 rd - 5 th August, 2019

5.3 Participation in Arogya Fairs / Exhibitions

Central Council for Research in Siddha participates in State and National level Arogya fair organized by various trusts / institutes in collaboration with Ministry of AYUSH.

The Council aims to create awareness about Siddha system by distributing pamphlets, booklets etc. The pamphlets were also distributed in regional language apart from English and Hindi. Pamphlet on Geriatric health care, Osteoporosis, Cardiac care, Diabetes mellitus, Psoriasis, Bronchial asthma, Menopausal syndrome, Urolithiasis, Simple Home Remedies, Depression, Insomnia, Dengue & Nilavembu Kudineer and Information about CCRS, were distributed to public to disseminate the knowledge about Siddha system.

The books published by CCRS were exhibited for sale. Health care was delivered to public by conducting special OPD, Varmam clinics etc. The public showed great interest by reading the translates on the topics Varmam, Kayakarpam, Higher order Siddha medicines, Preventive health care, Diagnostic principles in Siddha, Somato typing, Land influence, Unique herbals in Siddha, Metals used in Siddha, Gems used in Siddha, Animal products used in Siddha and Marines drugs used in Siddha.

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Figure 18: World AYUSH Expo 2019 & Arogya Fair from 22nd to 25th August, 2019 at CIDCO Exhibition Hall, Vashi, Navi Mumbai



Figure 19: Arogya Fair from 30th November to 2nd December, 2019 at Youth Hostel Ground, Goa



Figure 20: Arogya Fair 2019 from 13th to 15th December, 2019 at Codissia Trade Fair Complex, Coimbatore



Figure 21: 2nd International Arogya Fair from 19th to 22nd December, 2019 at Bhanarus Hindu University, Varanasi

Table 45: Participation in Arogya / Mela / Exhibition by the Officials

S. N.	Name of the Officials	Name of Mela/ Exhibition / Camp	Place	Duration
1.	Dr. Eugene Wilson Dr. K. Elavarasan Mr. R. Ramakrishnan	AYUSH Natural World Expo -2019	DR. Shyama Prasad Mukherjee AC stadium, Nr. Panaji, Goa	1 st - 3 rd August, 2019
2.	Dr. K. Siva Ranjanai Dr. S. Esaivani Ms. K. Maha Lakshmi	MADITSSIA - AYUSH -2019	MADITSSIA hall, Madurai	15 th - 18 th August, 2019
3.	Dr. B. Chitra Dr. R. Thilagavathy Ms. C. Sathiya Mr. A. Jayaprasanna Kumar Mr. K. Vasudevan	National Level Arogya Fair	CIDCO Exhibition Centre, Sector - 30, Vashi Navi Mumbai, Maharashtra	22 nd - 25 th August, 2019
4.	Dr. C. Anbarasi Dr. S. Shunmugaram Ms. T. Janani Mr. B. Lakshmanadu	7th Indian National Exhibition-cum-Fair-2019	Kolkata Metropolitan Dev. Authority (KMDA) Gorund Patuli, Kolkata	25 th - 29 th September, 2019
5.	Dr. M. Harihara Mahadevan	Global Exhibition on Services	Palace Grounds, Bangaluru	26 th - 28 th November, 2019
6.	Dr. S. Natarajan Dr. M. Harihara Mahadevan Mr. P. Srinivasulu Mr. R. Gunasekaran	State Level Arogya Fair	Youth Hostel Ground, Panji, Goa	30 th November - 2 nd December, 2019

7.	Dr. A. Kanagarajan Dr. A. Lavanya Ms. T. Janani Mr. P. Ayyanar	State Level Arogya Fair	Codissia Trade Fair Complex, Coimbatore	13 th – 15 th December, 2019
8.	Dr. R. Shakila Dr. K. Siva Ranjani Mr. C. Iyyapan Mr. Akshay Tiwari	2 nd International Arogya Fair	Banaras Hindu University, Varanasi, Uttar Pradesh	19 th – 22 nd December, 2019
9.	Dr. V. Aarthi Dr. M.S. Shree Devi Mr. N. Kirubakaran Mr. R. Gunasekaran	71 st Indian Pharmaceutical Congress	Chennai	20 th – 22 nd December, 2019
10.	Dr. K.N. Sunil Kumar Mr. K.C. Habeebmoon	Global Agriculture Festival - 2020	Krushi Vikas V Sanshodhan Charitable Trust, Nasik, Maharashtra	23 rd – 27 th January, 2020
11.	Dr. B. Akila Dr. B.K. Priya Mr. R. Ramakrishnan	National Level Arogya Fair	Parade Ground, Dehradun, Uttarakhand	12 th – 16 th February, 2020
12.	Mrs. Anitha John Dr. S. Ghanthi Kumar Dr. V.A. Rahul Mr. A. Arshad Ali	Exhibition "Darshan Arogya Wellness Expo-2020"	Thrissur, Kerala	14 th – 16 th February, 2020

6. Patents

Patent filed

1. A patent entitled "a herbo-metallic preparation AKT -1 tablet for the treatment of Myopia" invented by SCRUI, Tirupati
2. A patent entitled "Porridge (v7) composition for musculo-skeletal pain" invented by SCRI, Chennai

Patent Published

The patent which was filed pertaining to the IMR project entitled "Geo-Chemical Characterization of Hypothecated MUPPU" was published on 6th December, 2019 bearing the title "Process for the preparation of 'Pooneru' used in Siddha medicines and there of"

7. Siddha Pharmacopoeia Committee

The Siddha Pharmacopoeia Committee (SPC) with the mandate of establishing quality parameters for Siddha drugs and formulations is working under the aegis of the Ministry of AYUSH. It is currently functioning at CCRS Headquarters, Chennai. Manuscripts of two new publications namely Siddha Formulary of India (SFI), Part III (Tamil version) and SFI, Part II (English version) have been approved by SPC and sent to PCIMH for further process at Commission's end.

Consequently, Scientific Body, PCIMH has recommended that the drafts shall be uploaded on website for inviting stakeholders' comments after proper formatting

of the document in format acceptable to PCIMH. Revised editions of SFI, Part I (English) is in progress. Revised edition of SFI, Part I (Tamil) is under preparation for printing in PCIMH. Three projects (under category II) in line of scheme for outsourcing scientific work of PCIMH and carrying out Pharmacopoeial work in project mode were allotted to three PIs of institutes under CCRS namely SCRI, Chennai, SRRI, Puducherry and SRRI, Thiruvananthapuram. During the current year, SPC meetings, Task Force Committee meetings were conducted.



Figure 22: Siddha Pharmacopoeia Committee meeting on 20th September, 2019 at CCRS, Chennai



Figure 23: Scientific Body meeting of PCIMH held through video conferencing on 20th March, 2020

8. PEMC meeting

The first Project Evaluation and Monitoring Committee (PEMC) meeting was convened on 16th April and 10th June, 2019 respectively. Eight IMR projects which were completed was placed before the PEMC for evaluating the project work and monitoring the utilization of funds. The subject experts evaluated the project reports and gave suggestions to be incorporated in the final report. Members from the Ministry of AYUSH gave their suggestions regarding the financial aspects.



Figure 24: The first PEMC meeting on 10th June, 2019 at CCRS, Chennai

9. Extra Mural Research (EMR)

Background

The Ministry of AYUSH has introduced a scheme for Extra Mural Research to tap the potential of organizations like public and private organizations, pharmaceutical industries, educational institutions, Universities, hospitals, and individuals for the research needs of AYUSH sector. The scheme is aimed at developing the opportunity for scientific scrutiny of AYUSH systems for the benefit of users, researchers, practitioners, industries & common people at large. The outcomes of the scheme are expected to harness the potential of AYUSH in the interest of public health delivery. The evidences thus generated will help in propagating rational use, clinical application & mainstreaming of AYUSH. The scheme would widen the scope for clinical, fundamental, pharmaceutical, literary, and medicinal plant research in Extra Mural mode.

In the present era of globalization and development of a world market for traditional and herbal medicines, research and development are highly essential to promote the production and export of quality products in the form of drugs, nutraceuticals, cosmetics etc. There is a keen competition among other countries in the trade of herbal products. The Extra-mural Research scheme has been designed to encourage Research and Development in priority areas through financial assistance so that the research findings lead to validation of the AYUSH's approaches on drugs. CCRS is coordinating / facilitating the research projects related to Siddha under the Extra- mural Research Scheme of Department of AYUSH since 2011. Central Council for Research in Siddha was established and started functioning since 1st September, 2010 (Ref. CCRAS office order No. 1634/2010 vide Lr. 12-38/2009-CCRAS/Estt. dated 01.09.2010).

Objectives

- The objective of Extra Mural Research Scheme are as follows:
- To support Research and development in Extra Mural mode for treatment of prioritized diseases.
- To Standardize/validate and develop scientific evidence for safety, efficacy and quality of AYUSH drugs & therapies.
- To make scientific exploration of AYUSH system with interdisciplinary approaches.
- To achieve need based outcome in priority areas.
- To develop the potential of Human Resource in AYUSH system specially to inculcate aptitude and expertise to AYUSH systems.

Diagram 4: Extra Mural Research Process Snap Shot



Role of Internal Scrutiny Committee in EMR

- Application by a stake holder (University, Researcher, College, NGO)
- Thorough examination by ISC (Internal Scrutiny Committee)
- If found fit, EMR projects are recommended to PSC by DG, CCRS, Chairman of ISC
- If not, sent back to the PI for necessary modification/correction or rejection

Role of PSC in EMR

- Applicants recommended by ISC are called for presentation.
- Thorough examination by PSC (Project Screening Committee)
- If found fit, EMR projects are recommended to PAC by JS, AYUSH, Chairman of PEC.

Role of PAC in EMR

- Thoroughly examines the projects referred by PSC.
- If found in order, recommends for sanction of grants.

Current Status

The current status of EMR projects handled in the year 2019-20 is tabulated below:

Table 46: Completed and Ongoing Projects of EMR – Siddha

S.N.	Title of the project	Name and address of PI
Completed		
1.	Pre-clinical Studies of a Polyherbal and a Herbomineral formulation in the Management of Urolithiasis – A Comparative study	Dr. D. Chamundeeswari, Principal, Faculty of Pharmacy, Sri Ramachandra University, Porur, Chennai - 600 116
2.	Documentation and clinical validation of the efficacy of classical Siddha external therapy “Suttigai” for Azal keelvayu	Dr. S. Sridhar, Ashram Siddha Yoga Research Institute, Salem – 636 004
3.	Study on the Unique Siddha Dosage form Kattu	Dr. T. Thirunarayanan Centre for traditional Medicine & Research Adambakkam, Chennai - 600 088.

4.	Documentation of Visha Vaidhya Practices (Treatment of poison intake and poisonous bites) in the southern parts of Tamil Nadu	Dr. V. Ganapathy, Vivekananda Kendra - NARDEP, Kanyakumari - 629 702.
Ongoing Projects		
1.	Therapeutic efficacy of <i>Rasaganthi mezhugu</i> (RGM) in 7-12 Dimethyl benz[a]anthracene (DMBA) induced mammary tumours in rats	Dr. C. Balachandran, Dean and Professor of Veterinary Pathology, Madras Veterinary College, Vepery, Chennai - 600 007.
2.	In vitro and in vivo evaluation of therapeutic potential of Siddha drugs upon Chikungunya virus infection	Dr. Sujatha Sunil Vector Borne Diseases Group International Center for Genetic Engineering and Biotechnology Aruna Asaf Ali Marg, New Delhi
3.	Standardization, validation, toxicity and efficacy studies on Sangu parpam and Arathai Choornam	Dr. M. Ramanathan, Principal cum Professor PSG College of Pharmacy Peelamedu, Coimbatore-641 004.
4.	Validation of Pharmacological Efficacy of Nandhi Mezhugu, pre-treatment with Kummati Mezhugu in Preclinical models of anovulation and its application in veterinary medicine in ovulatory disorders in cattle.	Dr. M. R. Srinivasan, Assistant Professor, Department of Veterinary Pharmacology and Toxicology, Madras Veterinary College, Chennai - 600 007.
5.	Elucidation of the mechanism of action of a Siddha formulation against Alzheimer's disease	Dr. K. Uma Maheswari, Associate Dean & Professor, Centre for Nanotechnology Advanced Biomaterials, SASTRA University, Thanjavur.
6.	Enumerative and analytical study on certain Siddha drugs against enteric and superficial skin infective microbial pathogens	Dr. Ernest David, Prof. & Head, Dept. of Biotechnology, Thiruvalluvar University, Vellore - 632 115.
7.	An Evaluation of Chandamaruta Cheduram and Ayaveera Cheduram through study of Neurotransmitter, Protein and Enzyme level alterations occurring during their treatment for MCAO Focal Cerebral ischemia (induced brain stroke) in rats	Dr. S. Balarama Kaimal, Asst. Professor, Dept. of Biochemistry, Saveetha Medical College and Hospital, Thandalam, Chennai - 602 105.
8.	Oncological care with Siddha concepts in formulation: A novel scientific approach	Dr. N. Deepa, Asthaagiri Herbal Research Foundation,

		Perungudi Industrial Estate, Perungudi, Chennai - 600 096.
9.	Validation of the safety and therapeutic efficacy of Poorana chandirodayam in Dimethylhydrazine dihydrochloride induced colon cancer in rats.	Dr. S. P. Preetha, Principal Investigator & Asst. Professor, Dept. of Veterinary Pharmacology & Toxicology, Madras Veterinary College Chennai -600 007.
10.	Single step extraction of whole plant extract containing phenylpropanoids and investigation of their biomedical role in treatment of stomach cancer	Dr. M. Meenakshi Sundaram, Assistant Professor, School of Chemical & Biotechnology, SASTRA University, Tirumalaisamudram, Thanjavur-613401
11.	Evaluation of Cyto-Toxic and Anti-Proliferative Activity of A Siddha Herbo-Mineral Formulation Sanda Rasa Parpam (SRP)	Dr.N.Kabilan, Professor & Head, Department of Siddha, The Tamil Nadu Dr. M.G.R. Medical University, No.69, Anna Salai, Guindy, Chennai - 600 032
12.	Ameliorative potential of D5 chooranam in streptozotocin induced diabetic retinopathy	Dr. Gayathri Gunalan, Research Officer (Biochemistry), Siddha Regional Research Institute, Puducherry

10. Memorandum of Understanding between CCRS and other Institutions

MoU with Directorate of Indian Medicine & Homoeopathy

Central Council for Research in Siddha (CCRS) entered into a memorandum of understanding with Directorate of Indian Medicine and Homoeopathy (DIMH) on 15th May, 2019. The MoU was signed by Thiru. S. Ganesh, IAS, Director, DIMH, Chennai with Prof. Dr. K. Kanakavalli, Director General, CCRS, Chennai, in the presence of Prof. Dr. P. Parthibhan, Joint Director, DIMH and Prof. Dr. R. Meenakumari, Principal i/c, Govt. Siddha Medical College, Chennai and Dr. P. Sathiyarajeswaran, Assistant Director (Siddha) S-II & i/c, Siddha Central Research Institute and Dr. Shyamala Rajkumar, Research Officer (Siddha) S-II, CCRS. This would pave the way for furtherance of research & development in Siddha system of Medicine as evidence based medical system and also would help the Siddha students to carry out research work in an effective manner.



Figure 25: MoU between CCRS and DIMH, Chennai

MoU with Invest India

MoU with Invest India, a section 8 company under the Ministry of Commerce and Industry, Govt. of India, located at Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110011, on behalf of Accelerating Growth of New India's innovations (AGNIi), a project under the leadership of the Principal Scientific Adviser to the Government of India and housed at Invest India was signed on 6th November, 2019 for cooperation in the field of transfer of technology and commercialization of R&D outcomes and other related aspects. The MoU was signed by Shri. Deepak Bagla, CEO & MD, Invest India with Prof. Dr. K. Kanakavalli, Director General, CCRS, Chennai in the presence of Dr. P. Sathiyarajeswaran, Assistant Director (Siddha) S-III, i/c, Siddha Central Research Institute (SCRI), Chennai and Dr. K. Parthasarathy, Research Officer (Chemistry), SCRI, Chennai.

CCRS has started its first step in translating its innovation. In this direction, Dr. P. Sathiyarajeswaran, Assistant Director (Siddha) S-II, i/c, Siddha Central Research Institute (SCRI), Chennai and Dr. K. Parthasarathy, Research Officer (Chemistry), SCRI, Chennai. participated and displayed the Pharma / Environmental and Digital Innovations in the event --- Technology Showcase by the Ministry of AYUSH organized by Accelerating Growth of New India's Innovations (AGNII) on 12th March, 2019 at Hotel EROS, New Delhi.



Figure 26: MoU between CCRS and AGNIi, New Delhi

11. International Day of Yoga

The 5th International Day of Yoga was celebrated by Central Council for Research in Siddha, Siddha Central Research Institute (SCRI), Chennai in collaboration with Government Siddha Medical College (GSMC), Chennai at GSMC campus, Chennai on 21st June 2019 from 7.00 a.m. onwards.

After the invocation, Dr. P. Sathiyarajeswaran, Assistant Director (Siddha) S-II, i/c, SCRI welcomed the dignitaries, students and faculty of GSMC, SCRI and CCRS staff. Prof. Dr. K. Kanakavalli, Director General, CCRS delivered the presidential address and highlighted the important features of Yoga day logo. DG, CCRS expressed her pleasure for the august presence of Dr. A. Sivathanu Pillai, Former Chief Controller (R&D), DRDO, Founder Brahmos Aerospace and Former Honorary Distinguished Professor, ISRO in gracing the occasion.

Dr. R. Meena Kumari, Principal i/c, GSMC delivered the felicitation address and emphasized that today's climate has changed completely giving us an ambient atmosphere to perform Yoga and we should maintain the environment. Prior to the Chief Guest address, Dr. Eugene Wilson, Research Officer (Siddha), CCRS had the privilege to introduce the speaker.

Dr. A. Sivathanu Pillai delivered the chief guest address and mentioned that his father was a Siddha practitioner and used to practice Raja Yogam. Dr. Pillai elaborated about a clinical trial that was conducted in Mount Abu, the spiritual headquarters of Brahma Kumaris. In that two arm trial, 60 patients were taught Yogasana and were provided with Sathvic diet. The remaining 60 patients in the control arm were in the standard care of treatment using allopathic drugs. At the end of the 6 months trial, the Yogasana and Sathvic diet group were free of symptoms when compared to control group. Dr. Pillai exhorted that through Yoga we can create a good humanity for a strong nation in all domains. Earlier, the Yoga special issue of the Journal of Research in Siddha Medicine was released by Dr. Pillai and Prof. Dr. K. Kanakavalli, DG, CCRS received the first copy of the journal.

A Mass Yoga performance was performed by the Students, Staff of GSMC, SCRI and CCRS. The IDY 2019 celebrations and activities at the nearby Schools, Centers were documented through BHUVAN APP and YOGA LOCATOR APP. The Common Yoga Protocol (CYP) training for all the staff of CCRS, SCRI, GSMC were provided by Dr. R. Meena, Research Officer (Siddha), SCRI and Dr. C. Anbarasi, Research Officer (Siddha), SCRI.

Dr. S. Selvarajan, Research Officer (Siddha), S-II & DDO, CCRS Hqtrs. acknowledged the dignitaries, all the members who have put forth strenuous efforts for the success of the programme and all the participants for making this event a memorable one.

This year theme for International Day of Yoga 2019 on June 21st was 'Yoga for Heart'. So a symposium on Yoga for Cardiac Care was conducted at SCRI, Chennai which was attended by 104 PG students and Internee of Siddha Colleges. Pranayamam, its benefits in prevention and management of Cardiac ailments and Overview of Yogasanas was discussed.

Yogasana competition was organized by Central Council for Research in Siddha (CCRS) on 19th June, 2019 at Government Siddha Medical College (GSMC), Chennai, Sri Sairam Siddha Medical College & Research Centre (SSMC&RC), Chennai and Velumailu Siddha Medical College (VSMC), Sriperumbadur. CCRS congratulates the winners and participants of the Yogasana competition. The winners were awarded cash prizes and certificates and it was distributed by Dr. A. Sivathanu Pillai. CCRS is thankful for the support given by the Dr. R. Meena Kumari, Principal i/c, GSMC, Dr. S. Mathu Kumar, Principal, SSMC&RC and Dr. K. Balaguruswamy, Principal, VSMC in conducting the competitions. CCRS appreciates the efforts of the jury for the competition.

A public talk on 'History of Yoga' was given by Dr. S. Natarajan, Head DCR, SCRI at the All India Radio aired in Rainbow FM and FM Gold on 21st June, 2019. Yoga sessions were conducted for the beneficiaries of Swasthya Rakshan Programme at Natinal Institute of Epidemiology (NIE), Chennai by Dr. L. Juliet, Research Officer (Siddha), SCRI.

SRRI Puducherry organized the IDY 2019 in a meaningful manner. Public Awareness speeches were given at All India radio, Rainbow FM, Suryan FM. Outreach programme was conducted for VHNS, Anganwadi staff and 150 students and teachers of Vallalar Government Higher Secondary School, Vilupuram held on 12th June 2019. Common Yoga Protocol (CYP) training and awareness speeches were organized by SRRI together with Town Panchayat staff and Self Help Group women and Field Outreach Bureau, Ministry of Information & Broadcasting, Govt. of India, Puducherry at Storm Protection building and Government Higher secondary school at Kotakuppam.

SRRI, Thiruvananthapuram organized IDY awareness programmes and Demonstration of CYP at Government Girls Higher secondary school, Karamana and Government Upper and Lower Primary School, Poojappura. An essay competition entitled “Importance of Yoga in daily life” was conducted for the Staff of SRRI Poojappura. A live demo and awareness outreach programme were conducted for the benefit of prisoners at Central Prison, Poojappura.

A CME on “Prevention and Management of Lifestyle disorders through Yoga” was organized by Siddha Clinical Research Unit (SCRU), Palayamkottai. Write-a-thon competition was conducted for students of various schools. A debate was organized for Final year students of GSMC, Palayamkottai, on the topic, “Contribution of Yoga or Exercise for a healthy life”. Free Yoga training was given to the inmates of *Anbalayam Aatharavu Attravargal Kaapagam*, Salem district and staff of Chemplast Sanmar Pvt. Ltd. on the eve of 5th IDY by SMPG, Mettur.

Write-a-thon competition was conducted for students on the topic, “Yoga for Healthy Life” to create awareness among School children in New Delhi. An Inter-council quiz competition was conducted by SCRUC, New Delhi in which officers/staff from CCRAS, CCRH, CCRUM, CCIM and CCRH participated. Public lectures on the Topic, “Management of Non-communicable diseases with Siddha Medicines and Yoga” and Yoga Demo was conducted by SCRUC, Bengaluru. Yoga competition was held at Sri Jayachamarajendra Institute of Indian medicine, Bengaluru where students from 25 corporation schools in and around Bengaluru participated.

Yoga training sessions were conducted by doctors of SCRUC, Tirupati to students and staff members of various paramedical and medical colleges of Sri Venkateswara Institute of Medical Sciences (SVIMS), Tirupati. An essay writing competition on that topic, “Role of Yoga on Physical & Mental Health” was conducted. A special Siddha Yoga OPD for Cardiac care, Diabetes care, Weight reduction, reproductive care and Spine care was initiated at SCRUC, Tirupati to be conducted every Friday. Mass Yoga performances and campaign with lectures, distribution of Siddha Yoga Pamphlets was done at all the peripheral Institutes/Units in commemoration of the 5th IDY.



Figure 27: Participation of Officials of CCRS and its peripheral Institutes / Units during the 5th International Yoga day on 21st June, 2019

12. Miscellaneous Activities

12.1. Construction of CCRS Head Quarters

Govt. of Tamil Nadu has allocated a portion of land to the extent of 1680sq. meters (35m x 48m) out of 14.78 acres of land allocated to NIS in favour of CCRS to construct the headquarters building for CCRS (G.O. (MS) No. 466, dt 17/10/014 of Govt. of Tamil Nadu). CPWD, Chennai prepared drawings for the construction of Headquarters building with G+3 and the same has been approved by the competent authority of CCRS and Ministry of AYUSH. Archaeological Survey of India (ASI) has also issued the clearance certificate. Tender formalities for the construction of the above said projection has been completed by CPWD, Chennai and work order has been issued to contractor (M/s. KB Enterprises Chennai-107). Shri. Shripad Yesso Naik, Hon'ble Minister of State (Independent charge) for AYUSH laid the foundation stone for the construction of CCRS headquarters office building on 2nd May 2018.

However, Contractor has initiated the construction works in the month of December, 2018. Also, CCRS has submitted the Planning Clearance Application (PCA) to CMDA on 03.01.2018 (SBC No. INST/2015/000002-1 dated 03.01.2018) the construction of CCRS headquarters office building at NIS Campus. Site inspection was carryout by CMDA officials and the CCRS has submitted the revised plan rectifying particulars such as road width, site boundary, rainwater harvesting, lift machine room, etc., The construction works of all the floors has been completed. Wall plastering and painting for ground floor, first and second floor are completed. Plastering of third floor wall is in progress.

12.2. NABH

SRRI, Tvpm has organized the NABH Sensitization Programme on 1st April 2019 as per the direction from CCRS Headquarters to know about the accreditation standards and to understand the concept and Standard Operating Procedures that is to be implemented in the Institute. The NABH assessors Dr. P. Sathiyarajeswaran Assistant Director, In-Charge of Siddha Central Research Institute, Chennai and Dr. A. Rajendra Kumar In-Charge of Siddha Regional Research Institute, Puducherry were invited for the NABH Sensitization Programme. The issues/ challenges in the accreditation part of the Institute has been discussed in the meeting. The essentials for up-gradation of OPD and other facilities in SRRI, Tvpm, requirements for full-fledged Institute like equipment's, manpower, furniture, In-Patient ward, etc was also discussed in the meeting.

The basic requirement for NABH accreditation is the registration of Hospital and hence SRRI, Tvpm has initiated the steps for the registration in the Corporation of Thiruvananthapuram and to obtain the consent or authorization from Kerala State Pollution control board.



Figure 28: NABH Sensitization Programme on 1st April, 2019 at SRRI, Thiruvananthapuram

12.3. Silver Jubilee Celebration

Central Council for Research in Siddha (CCRS), Ministry of AYUSH, Govt. of India organized its Silver Jubilee Year Celebration Function of its peripheral unit Siddha Medicinal Plants Garden (SMPG), Mettur Dam, Salem District, Tamil Nadu on 26th April, 2019. The function was held to commemorate the completion of 25 glorious years of the institution. To commemorate the event, Siddha Herbal Expo and Free Siddha Medical Camp was also organized at SMPG, Mettur Dam from 9.30 a.m. to 6.00 p.m.

Dr. M. Padma Sorna Subramanian, Research Officer (Botany) S-II, i/c, welcomed the gathering. The function commenced with the ceremonial lighting of the Kuthuvilakku to invoke divine blessings for the successful accomplishment of the programme. Thereafter, the Chief Guest and the Guest of Honour were accorded a formal welcome with mementoes and shawls presented to them by Prof. Dr. K. Kanakavalli, Director General, CCRS.

Prof. Dr. K. Kanakavalli, Director General, CCRS, Prof. Dr. G. Veluchamy, Chairman, Scientific Advisory Board, CCRS & Former Director, Central Research Institute for Siddha, Chennai, Prof. Dr. G. Ganapathy, Member, General Body, CCRS & Former Joint Director, Directorate of Indian Medicine and Homeopathy, Chennai, Dr. G. Selvamoorthy, District Siddha Medical Officer, Salem and Namakkal District, Sh. V. Chelladurai, Former Research Officer (Botany) S-III, Survey of Medicinal Plants Unit – Siddha, Palayamkottai (Rtd.), Dr. K.S. Kalaimani, Former Research Officer (Siddha), SCRI, Dr. P. Sathiyarajeswaran, Assistant Director (Siddha) S-II, i/c, Siddha Central Research Institute, Chennai, Dr. S. Selvarajan, Research Officer, (Siddha), S-II, DDO, CCRS graced the occasion. Prof. Dr. K. Kanakavalli, Director General (CCRS), delivered the Presidential address.

All the staff members and garden workers who had been with the garden since long time were felicitated at the event for their invaluable service to the garden. A Hand Book on Siddha Medicinal Plants Garden authored by Dr. M. Padma Sorna Subramanian, Research Officer (Botany), i/c, S-II and Dr. M. Manokari, Research Assistant (Botany), SMPG and a book on “Medico Ethno Botanical Folklores” compiled and authored by Dr. M. Padma Sorna Subramanian, Research Officer (Botany), I/C, S-II and Sh. V. Chelladurai, Former Research Officer (Botany), S-III, Survey of Medicinal Plants Unit- Siddha, Palayamkottai and a video DVD on Siddha Medicinal Plants Unit of Siddha Medicinal Plants Garden Website work done under the project “Digitization and Compilation of Herbarium, Museum and Folklore claims of SMPU-Siddha, Palayamkottai” was released during the function. Silver Jubilee foundation Stone was opened by Prof. Dr. K. Kanakavalli, Director General, CCRS in the presence of other dignitaries.

Felicitation address was delivered by Dr. G. Veluchamy, Chairman, Scientific Advisory Board, CCRS & Former Director, Central Research Institute for Siddha, Chennai, Prof. Dr. G. Ganapathy, Member, General Body, CCRS & Former Joint Director, Directorate of Indian Medicine and Homeopathy, Chennai, Dr. G. Selvamoorthy, District Siddha Medical Officer, Salem and Namakkal District, Sh. V. Chelladurai, Research Officer (Botany), S-III, Survey of Medicinal Plants Unit – Siddha, Palayamkottai (Retd.), Dr. K.S. Kalaimani, Former Research Officer (Siddha), SCRI, Dr. P. Sathiyarajeswaran, Assistant Director (Siddha), S-II & i/c, Siddha Central Research Institute, Chennai. The programme was hosted by Dr.A.Rajendra Kumar, Research Officer (Siddha) S-II & i/c, Siddha Regional Research Institute, Puducherry. Dr. S. Selvarajan, Research Officer (Siddha), S-II, DDO, CCRS, delivered vote of thanks.

The dignitaries appreciated Dr. M. Padma Sorna Subramanian, Research Officer (Botany) S-II & i/c and the staff of SMPG for their tireless commitment and efforts in the development of Siddha Medicinal Plants on reaching this milestone. The function concluded with the National Anthem.



Figure 29: Silver Jubilee celebration on 26th April, 2019 at SMPG, Mettur Dam

12.4. Anti-Terrorism Day

Anti-terrorism day was observed on 17th May, 2019 by the staff members of Central Council for Research in Siddha and its peripheral Institutes / Units as per the instructions from the Ministry of AYUSH.



Figure 30: : Pledge taking ceremony on Anti-terrorism day

12.5. World No Tobacco day

On the occasion of “World No Tobacco Day”, Prof. Dr. K. Kanakavalli, Director General, CCRS administered the pledge in Hindi, English and Tamil languages on 31st May, 2019 at 11.30 a.m. Prior to the pledge, DG, CCRS narrated the hazards of oral Tobacco usage, active and passive smoking and hence sought the cooperation of all Officers and staff of CCRS Hqtrs. to ensure that the campus is Tobacco free. As per the directions of CCRS Hqtrs, the various peripheral institutes/units of CCRS also carried out the pledge taking ceremony on World No Tobacco Day.



Figure 31: Pledge taking ceremony on World No Tobacco Day

12.6. World Environment Day

As per the direction of Ministry of AYUSH, Central Council for Research in Siddha observed the World Environment Day on 5th June, 2019. The theme for the year 2019 was Air pollution. The following activities were conducted in connection with the World Environment Day.

1. Workshop on Prevention & Management of Respiratory Disease was organized for the Students / Faculties of Govt. Siddha Medical College, Arumbakkam, Chennai and Officer / Staff of CCRS and SCRI, Chennai on 6th June, 2019.

2. Drawing competition on the theme Air pollution was conducted for School Students at Govt. High School, MMDA colony, Chennai.
3. Quiz Programme was conducted for the Officers / Staff of CCRS and SCRI, Chennai.



Figure 32: World Environment Day activities on 5th June, 2019

12.7. Jal Shakti Abhiyan (Water Conservation Campaign)

Central Council for Research in Siddha (CCRS) organised Jal Shakti Abhiyan awareness campaign to promote water conservation. The campaign was conducted at OPD campus of Siddha Central Research Institute, Arumbakkam, Chennai on 4th September, 2019. General public and all the employees of CCRS, Hqtrs. Office and SCRI, Chennai participated in the campaign.

Dr. S. Natarajan, Research Officer (Siddha) welcomed the gathering. Prof. Dr. K. Kanakavalli, Director General, CCRS gave an awareness speech regarding importance of water conservation and community participation in the Jal Shakti Abhiyan. Dr. L. Mugunthan, Nodal Officer (Swachh Bharat Mission), CCRS explained the objectives of Jal Shakti Abhiyan. Dr. R. Ganesan, Chairman (Swachh Bharat Mission), SCRI, Chennai delivered the vote of thanks.



Figure 33: Prof. Dr. K. Kanakavalli, DG, CCRS delivering the lecture during Jal Shakti Abhiyan awareness campaign on 4th September, 2019 at SCRI, Chennai

12.8. Implementation of Official Language Hindi in CCRS

The official language Hindi in CCRS Hqtrs. office and its peripheral Institutes / Units is being implemented according to the O.L. Act 1963, Rules 1976, Resolution, Policy and Government orders issued from time to time. The translation of documents into Hindi and training of employees in Hindi language was also carried out. The Quarterly meetings and workshop was conducted by the CCRS. The Hindi Fortnight was organized in the CCRS and its peripheral Institutes / Units from 14th to 28th September, 2019. During this period, staff of Council were encouraged and motivated to do their entire official work in Hindi. Various competitions were also conducted during this period. Siddha Regional Research Institute, Thiruvananthapuram of CCRS has received the certificate for effective Implementation O.L. in Category-II TOLIC Rajbhasha Award (certificate). Some of the employees also participated in the Hindi Seminar / Conference.



Figure 34: Hindi fortnight celebration from 14th to 28th September, 2019



Figure 35: SRRI, Thiruvananthapuram has received the certificate for effective Implementation O.L. in Category-II TOLIC Rajbhasha Award (certificate)

12.9. Technical Review Meeting

The Fifth Technical Review Meeting of Central Council for Research in Siddha (CCRS) and its peripheral Institutes / Units was held at Indian Institute of Science (IISc), Bengaluru on 28th September, 2019. Prof. Dr. K. Kanakavalli, Director General, CCRS chaired the meeting and conveyed her words of appreciation to all the incharges for their cooperation and support pertaining to all the programmes of the Ministry of

AYUSH and Central Council for Research in Siddha. Further, DG, CCRS conveyed that, this technical review meeting is not a fault finding exercise but to revamp and streamline the Council activities with productive outcome. Various issues pertaining to technical, administration and financial matters were discussed.



Figure 36: The Fifth Technical Review Meeting of CCRS and its peripheral Institutes / Units was held at Indian Institute of Science (IISc), Bengaluru on 28th September, 2019

12.10. The International Day of Older Persons

On account of International day of older persons, CCRS and its peripheral institutes/units organized awareness talk to the OPD patients about geriatric diseases and geriatric care on 1st October, 2019. IEC materials were distributed to create an awareness among the general public to take care of the elderly population. Dr. K. Samraj delivered a lecture on "Leading healthy life in old age". Dr. K. Nandhagopal delivered a talk on the benefits of Siddha system of Medicine, Yoga and Nutrition to reduce the old age problems like OA, BPH and Alzheimer's disease. Shri. A. Ravichandran enlightened the participants on how to be happy and to lead stress free in old age.



Figure 37: Dr. K. Nandhagopal delivering his lecture in the International Day of Older Persons on 1st October, 2019 at SCR, Tirupati

12.11. Swachh Bharat

As per the directions of the Ministry of AYUSH, Council has organized the Swachh Bharat related activities throughout the year in CCRS Hqtrs. and its peripheral Institutes / Units. CCRS observed the Swachta Pakhwada from 16th to 31st October 2019. In connection with Swachta Pakhwada, CCRS conducted competitions on drawing, innovative talks, rangoli, quiz, essay, skit performance, wall painting, planting saplings, rallies, Swachta Logo creation for the employees, students and general public to create awareness about clean India.



Figure 38: Swachta Pakhwada activities from 16th to 31st October, 2019

Central Council for Research in Siddha organized medical camps throughout the year for the benefit of general public. As a part of Swachta Pakhwada programme, CCRS conducted a hand wash training programme and distributed IEC materials to public to promote sanitation awareness. New toilets were also constructed to ensure sanitation.

12.12. Vigilance Awareness Week

Vigilance Awareness Week was observed in the headquarters and in the peripheral Institutes / Units from 28th October to 2nd November, 2019. The theme of vigilance awareness week was “Integrity – A Way of Life”. A pledge was also taken by all the staff members.



Figure 39: Vigilance Awareness Week observed from 28th October to 2nd November, 2019

12.13. National Unity Day

As directed by the Central Council for Research in Siddha, Chennai, Rashtriya Ekta Diwas or National Unity Day was observed in all peripheral Units / Institutes on 31st October, 2019 and pledge was taken by the employees of all Units/Institutes.



Figure 40: Pledge taking ceremony on National Unity Day

12.14. Launch of Siddha Telemedicine Services through CSC

Telemedicine services taken by Common Service Centres (CSC) for Siddha Medicine was launched by Initiates of Ministry of AYUSH on 1st November, 2019.

Dr. Leena Chhatre, OSD, AYUSH Grid, Ministry of AYUSH inaugurated the event and also opened up the Infrastructure created in Siddha Central Research Institute, Chennai with the untiring efforts of Prof. Dr. K. Kanakavalli, DG, CCRS. Dr. P. Sathiyarajeswaran, Coordinator, for this pilot project from Siddha delivered the lecture and sensitized about Telemedicine.

Benefits of TM

- Digital India initiatives Better Health delivery
- Reaches the unreachable population through Telemedicine consultation for Siddha treatment.
- Referral practices to secondary and tertiary hospital in needy population
- Preventive advises
- Life style modification methodologies

More than 80 Village level Entrepreneurs selected by State CSC team led by Mr. Kuriakose, State leader, very enthusiastically participated and cleared their Doubts. Mr. Abhishek and Mr. Himanshu of CSC trained the medical team about CSC portal for Siddha. Definitely, it is a mile stone in the Siddha history as we have implemented AHMIS on November, 2018 and Telemedicine in 2019 involving CCRS team.



Figure 41: Launch and inaugural ceremony of Telemedicine on 1st November, 2020

12.15. World Diabetic day

World Diabetic Day was observed on 14th November, 19 in SCRUI, Tirupati. Dr. K. Samraj, Research Officer (S) i/c and Dr. K. Nandhagopal Consultant (S) delivered awareness speech on Diabetes, food habits and lifestyle modifications to be adopted by diabetics.



Figure 42: Dr. K. Samraj delivering his awareness speech during World Diabetic Day on 14th November, 19 in SCRUI, Tirupati.

12.16. Constitution Day

Central Council for Research in Siddha (CCRS) and Siddha Central Research Institute (SCRI) observed the 70th Constitution Day on 26th November, 2019 in the presence of the Director General of CCRS, all the Officers / staff of CCRS and SCRI took the pledge on the Constitution day to reaffirm our resolution to abide by the fundamental duties enshrined in our Constitution. The various Institutes / Units under CCRS took the pledge at their respective units



Figure 43: Pledge taking ceremony on Constitution Day

12.17. Cancer Day Symposium

As a part of world cancer day, awareness meeting was conducted on 4th February, 2020 around 12.00 p.m. in Siddha Clinical Research Unit Tirupati. Dr. K. Samraj Research officer & i/c delivered the welcome speech. Dr. K. Nandhagopal, Consultant delivered a speech on the prevalence of cancer in India and importance of early detection. A short description on culinary items with anticancer activity that are commonly used in Siddha medicine was discussed and IEC materials were also distributed to the participants.



Figure 44: Dr. K. Nandhagopal, Consultant delivered a speech during World Cancer Day 4th February, 2020 at SCRUI, Tirupati

12.18. Observance of Siddha Day

Every year the birth star of *Siddhar Agathiyar*, the father of Siddha Medicine is celebrated as "Siddha Day". The Ministry of AYUSH had accorded approval to observe the 3rd Siddha day on 13th January, 2020. The mega event was organised by Central Council for Research in Siddha (CCRS) in collaboration with National Institute of Siddha (NIS) and Directorate of Indian Medicine and Homoeopathy (DIM&H) at Amma Arangam, Chennai. The theme of the Siddha Day celebration was "Siddha Science for Preventive and Promotive Health". The Third Siddha Day was a triumphant success with overwhelming support of Shri. Vaidya Rajesh Kotecha ji, Secretary, Ministry of AYUSH and mentorship of Shri. P.K. Pathak, Additional Secretary, Ministry of AYUSH, New Delhi.



Figure 45: Lighting of Lamp by Her Excellency Dr. Tamilisai Soundararajan, Hon'ble Governor of Telangana



Figure 46: Lighting of Lamp by Shri Shripad Yesso Naik, Hon'ble Minister of State (Independent charge), Ministry of AYUSH



Figure 47: Chief Guest address by Her Excellency Dr. Tamilisai Soundararajan, Hon'ble Governor of Telangana



Figure 48: Presidential address by Guest of honour Shri Shripad Yesso Naik, Hon'ble Minister of State (IC), Ministry of AYUSH

Her Excellency Dr. Tamilisai Soundararajan, Hon'ble Governor of Telangana inaugurated the 3rd Siddha day celebrations and in her chief guest address, emphasized the role of Integrative medicine and traditional medicine especially Siddha system for Prevention as well as Promotion of Health. She appreciated the Amma Magaperu Sanjeevi scheme and advocacy of Nilavembu kudineer in the prevention and management of Dengue fever successfully.

Shri Shripad Yesso Naik, Hon'ble Minister of State (Independent charge), for AYUSH, delivered the Presidential address highlighting the extensive activities carried out through the Ministry of AYUSH to promote and popularize AYUSH systems. The celebration of Siddha Day is spreading the benefits of the Siddha system to the masses. Dr. C. Vijayabaskar, Hon'ble Minister for Health and Family welfare, Tamil Nadu, briefed the schemes which have gained popularity in the State to tackle nutritional disorders (Anemia) and vector borne diseases (Dengue). Moreover, due to the integration with traditional systems of Medicine, the state of Tamil Nadu had ranked the top in health indicators.

Shri. P.K. Pathak, Additional Secretary, Ministry of AYUSH mentioned that preventive, promotive and curative are the three essential aspects of health as well as strength areas of Siddha Medicine. So, Siddha is not merely considered as a medical system, but indeed a "Way of Life" which can very well be followed in our day to day activity to get rid of all physical and psychological ailments. Dr. (Tmt.) Beela Rajesh, Secretary, Department of Health & Family Welfare Government of Tamil Nadu felicitated the gathering and pointed out the achievements of the Department with regards to tackling Public health problems.



Figure 49: Keynote address by Additional Secretary, Shri Pramod Kumar Pathak, Ministry of AYUSH



Figure 50: Her Excellency Dr. TAMILISAI Soundararajan, Hon'ble Governor of Telangana is being honoured by Prof. Dr. K. Kanakavalli, Director General, CCRS, Chennai

While Prof. Dr. K. Kanakavalli, Director General, Central Council for Research in Siddha, Chennai, welcomed the gathering and thanked the State and Central departments for various cooperation given for the upliftment of Siddha system of Medicine. Prof. Dr. R. Meenakumari, Director, National Institute of Siddha delivered the vote of thanks.

In order to observe the Siddha day in a scientific manner, a National Conference on the theme "Siddha Science for Preventive and Promotive Health" was organized. Three plenary lectures were organised as a part of the scientific session. Dr. Sudha Seshayyan, Vice-chancellor, The Tamil Nadu Dr. MGR Medical University, Chennai, spoke on the topic, Siddha Medicine- Translational Research and its

significance". Dr. G. Sivaraman, Managing Director, Arogya Siddha Hospitals and Arogya Health Care Pvt. Ltd. Chennai, gave a discourse on the topic, "The Current World's Expectations from a Siddha Physician". Prof. Dr. V. Gopal, Principal, College of Pharmacy and Registrar Academic, Mother Theresa Post Graduate and Research Institute of Health Sciences, Pondicherry, delivered a lecture on the topic, "Research on Siddha Science: Opportunities and Future Perspectives".

Awareness Programmes on Siddha system of Medicine included lectures, rallies, and various competitions were held for one month prior to Siddha Day by various Peripheral Institutes / Units in this regard. Siddha day Pre-events include Indian Records Event, Mini Project Research Grant competition, Write-a-thon Competition, Mural Painting Contest, Scientific writing and Success stories writing were held to hone the talents of students of Siddha medical colleges, various other colleges and the public. Prizes and certificates were awarded to the winners on the Siddha Day. Best outgoing student awards were given to the PG & UG students who have passed out with the first mark in the Final Year exam conducted by the Tamil Nadu Dr. MGR Medical University, Chennai

On eve of the grand third Siddha day celebrations, more than 1200 registered delegates participated including Siddha students, researchers and Siddha experts. To encourage young students and researchers, scientific papers were allowed to be presented as posters on various topics pertaining to Siddha science for Public and Promotive Health. Live Potted Plants and Raw drug specimens with information of their use in Siddha system were displayed along with their botanical details. The faculty members of various Siddha Colleges / Institutes, UG, PG and Research Scholars and the general Public benefitted by this informative exhibition.

The celebration of the third Siddha day was marked by special events Siddha Master Health check-up including Body constitution analysis, Pulse diagnosis and Diet-Activity counselling, free medical camp and Varmam therapy. In addition herbal cooking competition was also conducted.



Figure 51: My health in My hands, Self-Health awareness, as a Mass Event Attempt for Indian World Records



Figure 52: Student formation of Siddha Day 2020



Figure 53: Students portraying En Nalam En Kayil

Central Council for Research in Siddha (CCRS) and Velammal Vidyalaya (Annexure) jointly organised a Pre-Siddha Day event called “என் நலம் என் கையில்” on promoting the concept of “My health in My hands”, Self-Health awareness, as a Mass Event Attempt for Indian World Records. Highlight of the event was the biggest human formation of Siddha Day 2020 with 2020 Children wearing Agathiyar face mask and holding a medicinal plant sapling in their hand to inculcate the habit of healthy living by using herbs from childhood itself.

The peripheral Institutes / Units of CCRS organized various events --- conference / seminar in collaboration with nearby Siddha colleges. The following pre-events were organized by the Peripheral institutes/Units of CCRS:

1. A National seminar on “Role of Siddha medicine in the management of Nutritional disorders- An Integrative approach”, was organized by SCRUI, Bengaluru in association with The University of Trans Disciplinary Health Sciences and Technology (TDU), Bengaluru on 13th December, 2019 at TDU, Bengaluru.
2. A National Seminar on “Siddha Palliative Care” (NSSPC -2019) on 20th December, 2019 was organized by SCRI, Chennai at the Institute Premises.
3. A National Seminar on Art of Healthy Life style through Siddha Dietetics was organized by SRRI, Puducherry on 22nd December, 2019 at Hotel Abi Krishna, Reddiarpalayam, Puducherry.
4. The Herbal Exhibition and Siddha Medical camp was organized by SMPG, Mettur Dam on 28th December, 2019
5. A National workshop on “Scope of Integrative Medical treatment in Clinical practice” (SIMTI-2020) was organized by SCRUI, Tirupati and CCRS in association with Sri Venkateshwara Institute of Medical Sciences (SVIMS) on 3rd January, 2020 at Sri Padmavathi Auditorium, SVIMS.
6. The National Seminar & Workshop on “External therapies in Siddha system of Medicine” (EXTSSM -2020) was organized by SRRI, Poojappura, Thiruvananthapuram on 7th January 2020 at the Conference Hall of SRRI, Thiruvananthapuram.
7. A National Seminar on “Integrated Research Approaches in Siddha system of Medicine” was organized by SCRUI, New Delhi on 9th January, 2020 at LT-III, Vardaman Mahavir Medical College, New Delhi.



Figure 54: A National seminar on Role of Siddha medicine in the management of Nutritional disorders- An Integrative approach organized by SCRUI, 13th December, 2019 at TDU, Bengaluru.



Figure 55: A National Seminar on Siddha Palliative Care (NSSPC -2019) on 20th December, 2019 was organized by SCRI, Chennai



Figure 56: A National Seminar on Art of Healthy Life style through Siddha Dietetics was organized by SRRI, Puducherry on 22nd December, 2019 at Hotel Abi Krishna, Puducherry.



Figure 57: The Herbal Exhibition and Siddha Medical camp was organized by SMPG, Mettur Dam on 28th December, 2019



Figure 58: A National workshop on Scope of Integrative Medical treatment in Clinical practice (SIMTI-2020) was organized by SCRUI, Tirupati on 3rd January, 2020 at Sri Padmavathi Auditorium, SVIMS.



Figure 59: The National Seminar & Workshop on External therapies in Siddha system of Medicine was organized by SRRI, Thiruvananthapuram on 7th January, 2020



Figure 60: A National Seminar on Integrated Research Approaches in Siddha system of Medicine was organized by SCRUI, New Delhi on 9th January, 2020 at Vardaman Mahavir Medical College, New Delhi

12.19. Complaints committee meeting

The meeting of internal complaints committee constituted for preventing sexual harassment of woman at work place (Prevention, Prohibition and Redressal) Act, 2013 was convened on 9th March, 2019. No cases related to the issue were reported so far.

12.20. Science Club

Introduction

The Science club of Siddha Central Research Institute, Arumbakkam, Chennai – 600 106 was inaugurated by Dr. G. Veluchamy, Director i/c, SCRI, Chennai in the year of 2002 with the aim to impart to provide In-house training and the exposure to the recent advances in different areas of different faculties to the research officials of this institute. The Chairman of the science club Dr. P. Sathiyarajeswaran, Asst. Director (Siddha) S-III and i/c, Secretary Dr. M. Kannan, Research officer (Siddha) S-II and Coordinator Dr. G. Dayanand Reddy, Asst. Director, S- III (Pharmacology).

Aims & objectives

- To update the knowledge of members through invited lectures from eminent scientists.
- To reorient, revise, and regulate the ongoing research projects.
- To get training for better presentation of our scientific work and to improve the style of presentation.
- To understand the advancement in latest technology, therapies and the methodology followed in reputed Institution.
- To get guidance and professional contact / access for further collaborative research work to share knowledge through healthy interaction.

Members of the club

All the staff from the cadre of the Lab Technician working in this Institute in different departments likes Pharmacognosy, Phyto-chemistry, Biochemistry, Pathology, Pharmacology and Clinical Research are the members of the club.

Functioning of Science club

Mostly every month the science club will organize a meet with an invited speaker from various fields viz Siddha, Urology, Cardiology, Cardio Thoracic surgery and Yoga etc., enlightened the audience with their views on specified topics.

Advantages of Science club

The proceedings and activities of Science club are highly beneficial to all scientists. The club gives an opportunity for healthy interaction and also helps to update the information and knowledge. The staff of CSMDRIA and ALURIM were also invited and benefited. Siddha, Ayurveda, Yoga, and Unani College staff and Students are also invited for the meet and there is always a good amount of participation by the students and staff of four colleges.

Table 47: Details of Science Club meeting organized during the reporting period

S. No.	Name of the Resource Person	Topic	Date
1.	Dr. P. Pandikumar, Scientist, Division of Ethno Pharmacology, Loyala College	Quantitative Ethnobiology – Importance, recent trends and opportunities?	22 nd August, 2019
2.	Dr. Vijayaprasad Gopichandran, Assistant Professor, Dept. of Community Medicine, ESIC Medical College & PGIMSR, Chennai Dr. Sudharshini Subramaniam, Assistant Professor, Institute of Community Medicine, Madras Medical College, Chennai	Introduction to Applied Psychometrics	16 th November, 2019
3.	Dr. D. Periyasamy, Lecturer, Dept. of Sirappu Maruthuvam, National Institute of Siddha, Chennai	Importance of Leech Therapy (Attai Vidal) in Siddha System of Medicine	12 th March, 2020

12.21. Journal Club

Central Council for Research in Siddha organised the Journal Club under the guidance of Prof. Dr. K. Kanankavalli, Director General on 18th September, 2019 at SCRI auditorium, Anna hospital campus, Arumbakkam, Chennai.

Dr. L. Mugunthan, Research Officer (Medicine) / Co-Ordinator for the Journal Club welcomed the gathering. Dr. V. Aarthi, Research officer (Siddha) gave introduction about the speaker. Dr. Sugun Lal Jabaris, Research Officer (Pharmacology), SCRI, Chennai delivered his talk on the topic “Pre-Clinical Animal Models”. Scientists from CCRS and Siddha Central Research Institute interacted with the speaker. At the end of the session, Dr. R. Ganesan, Assistant Director (Bio-Chemistry) delivered the vote of thanks.

Aims & objectives

1. To update knowledge of Research Officials & Staff of the Institute.
2. To critically appraise the literature.
3. To develop an approach to the analysis of the various types of articles.
4. To understand the basis of hypothesis testing (Type I and II errors, p values, 95% confidence intervals, sample size).
5. To understand the basis of diagnostic testing (Prevalence, sensitivity, specificity, positive and negative predictive values, likelihood ratios).
6. To become familiar with sources of bias.
7. To understand as to how the results of studies could be effectively used in clinical practice.

Functioning of Journal Club

The Journal Club meeting was organized by CCRS on 3rd Wednesday of every month by inviting a resource person from various fields viz Siddha, Modern Medicine, Bio-Chemistry, Chemistry, Pathology, Pharmacology and Pharmacognosy.



Figure 61: Dr. L. Sugin Lal Jabaris, Research Officer (Pharmacology) delivering his lecture in Journal Club at SCRI, Chennai on 18th September, 2019

12.22. Social Media Activities and Initiatives

With the support of Vaidya Rajesh Kotecha, Secretary, Ministry of AYUSH and Shri. P.K. Pathak, Additional Secretary, Ministry of AYUSH as well as mentorship of Shri P. N. Ranjit Kumar, Joint Secretary, Ministry of AYUSH, CCRS with the support of trained research officers on social media, is posting content and relevant information accessible for the welfare of public.

A duty roster for preparing content has been issued to all the in-charges of peripheral institutes / units to post in AYUSH Siddha face-book page which is also being posted in CCRS twitter handle.

The social media platform is a boon to disseminate information, activities and research outcomes carried out by the Council. The special days such as Observance of Siddha day, Swasthya Raksha Programme (SRP), International Day of Yoga, Swaccha Bharat Abhiyan, Poshan Maa, Poshan Abhiyan, etc. are promoted through apt content for dissemination of the concerned initiatives. In addition, a YouTube channel and a blogging site for CCRS have been created and are being maintained.

12.23. Ph.D Fellowship

AYUSH Ph.D. fellowship programme has been initiated by Ministry of AYUSH in the year 2016 to enhance research opportunities for meritorious AYUSH scholars and to generate good human resource for quality research in AYUSH sector. The AYUSH – National Eligibility Test for Ph.D. fellowship programme, a computer based online national level examination for PG qualified AYUSH candidates, was successfully conducted on 13th December, 2018. Totally 82 candidates appeared for the exam and 4 candidates were qualified to pursue their Ph.Ds from Siddha stream. Provisional registration is pending in the Tamil Nadu Dr. M.G.R. Medical University.

12.24. Covid-19 related activities

- The expert meeting for advocacy of Siddha in the Prevention and Management of Novel Corona Virus nCoV-2019 was held on 4th February, 2020 in the Mini-conference Hall (Ground floor) of the Siddha Central Research Institute (SCRI), CCRS, Chennai.
- An advisory entitled “Corona Virus: Preventive and Prophylactic Advocacy in Siddha System” was prepared providing the scope of research in Siddha system of Medicine was submitted to the Ministry of AYUSH.
- Inputs related to the concept note on prevention and management of corona virus through Siddha system of Medicine and the related scientific evidences supporting Siddha Medicines in the Advisory was sent to the Ministry of AYUSH.
- In continuation with the meeting at AYUSH Bhavan on 5th March, a draft was prepared based on the research articles already published and proposal given by the President TANSOMA to Secretary AYUSH. The list of medicines was finalized with the help of supporting documents like clinical, pre-clinical, review articles which was submitted to the committee.
- Nilavembu kudineer details at the SCRUI, New Delhi was provided following which the Advisory for Siddha was approved by the Secretary, Ministry of AYUSH
- Based on the Advisory submitted by CCRS, the Secretary, Ministry of AYUSH issued an Advisory on 6th March, 2020
- A Covid Information Cell was created by the Ministry of AYUSH. The number of beds available for quarantine at peripheral Institutes of CCRS were also entered in the online portal covid19.nhp.gov.in
- Interaction with Hon’ble Prime Minister Shri Narendra Modi pertaining to Siddha intervention for COVID-19 on 28th March, 2020. Prof. Dr. K. Kanakavalli, Director General, CCRS, Chennai along with Siddha experts Prof. P. Jeyaprakash Narayanan, Former Principal, Government Siddha Medical College, Chennai & Chairman, SPC/ SAC, NIS, Dr. M. Pitchiahkumar, President, TANSOMA & The State Licensing Authority (Indian Medicine), and Dr. G. Sivaraman, Managing Director, Arogya Health Care Pvt. Ltd. interacted with Hon’ble Prime Minister

Shri Narendra Modi pertaining to Siddha intervention for COVID-19 on 28th March, 2020 at CCRS Headquarters Office, Chennai. On behalf of the expert team, Prof. P. Jeyaprakash Narayanan interacted with the Hon'ble Prime Minister and advocated Nilavembu Kudineer and Kabha Sura Kudineer for management of Covid-19 as well as for the prevention/prophylaxis of Covid-19.

- A separate phone contact was established by SRRI, Puducherry for attending the corona related queries for the Public.
- A meeting was held under the Chairmanship of Shri. S. Ganesh, Director, Directorate of Indian Medicine and Homoeopathy (DIM& H) on 30th March, 2020 at DIM&H. Prof. Dr. P. Parthibhan, Joint Director (Siddha), DIM& H, Prof. Dr. K. Kanakavalli, Director General, CCRS, Prof. R. Meenakumari, Director, NIS, Dr. M. Pitchiahkumar, The State Licensing Authority (Indian Medicine), Dr. Manavalan, Joint Director (Yoga and Naturopathy), Principal, GUMC and other experts participated in the meeting. The following suggestions were given by DG, CCRS in the meeting: Nilavembu Kudineer was suggested as a preventive measure. For symptom management of COVID -19 like illnesses, Kaba Sura Kudineer and Adathodai Manapagu were suggested.
- Kaba Sura Kudineer can also be used as an add on Intervention to the Conventional Care
- Suggestions, proposals and concept have been received through COVID platform and acknowledgement has been provided to the applicant
- DG, CCRS participated in the meeting held on 30th March, 2020 with Commerce Minister and Secretary, Ministry of AYUSH to receive the views of industrialists to tackle the Covid-19.



Figure 62: The experts meeting for advocacy of Siddha in the Prevention and Management of Novel Corona Virus nCoV-2019 was held on 4th February, 2020 at CCRS, Chennai

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