

RESUME

Name: Dr.Arul Amuthan

Qualifications: BSMS, MD (Siddha Medicine), MSc.Medical Pharmacology,
MSc.Yoga and Naturopathy, Ph.D. (Ethnopharmacology)

Current position & working experience:

- ❖ Team Leader – Division of Siddha, Center for Integrative Medicine and Research (CIMR), Manipal University, Since 1 Dec.2015 till now.
- ❖ Assistant Professor, Department of Pharmacology, Melaka Manipal Medical College (MMMC), Manipal University, India, since 21 October 2010 till now.
<https://manipal.edu/mmmc-manipal/department-faculty/faculty-list/arul-amuthan-1.html>
- ❖ Other Responsibilities - PhD guide, Human Ethics Committee member
- ❖ Responsibilities in Govt. of India – Syllabus committee, Ministry of AYUSH, Expert in Traditional Digital Library (TKDL), Council of Scientific and Industrial Research.

Role in MMMC:

Teaching, conducting examinations, evaluation, mentorship, research, publication, grant writing.

Role in CIMR:

Team Leader, Integrative Medicine research, Siddha health care, getting grants, getting MoU for research, transforming the Center into an Institution with courses.

Date of birth: 04 May 1981

Contact Address:

Department of Pharmacology,
Melaka Manipal Medical College,
Manipal Academy of Higher Education,
Manipal, Karnataka state, India – 576104.
Mobile: +91-9986353238, +91-7019741509
Email: arul.amuthan@manipal.edu
dramuthanmd@gmail.com

My interest and area of research other than teaching

- ❖ Phytochemical standardization and drug discovery from natural products & CAM
- ❖ Pharmacological and Toxicological evaluation of natural medicines /CAM
- ❖ Evidence based Integration of CAM with modern medicine
- ❖ Herbal medicine / food vs. modern drug interactions
- ❖ Herbal medicine/ diets as a therapy for chronic diseases such as cancer, autoimmune disorders etc.

EDUCATION/TRAINING

Institution and location	Degree	Completion	Field of study
The Tamilnadu Dr. MGR Medical University, India	B.S.M.S. – 5 ½ year (Bachelor of Siddha Medicine and Surgery)	April 2003	Basic medical sciences, clinical sciences and therapeutics using Siddha system.
Government Siddha Medical College Hospital, Tamil Nadu state, India.	6 months	Feb.2004	Compulsory Internship training in hospital, which is a part of BSMS.
The Tamilnadu Dr. MGR Medical University, India	M.D. – 3year (Doctor of Medicine in Siddha)	Sept. 2007	Pathology, diagnosis, preventive Medicine, Western Medicine, Traditional Medicine
Catalyst Clinical Services Pvt. Ltd, Delhi	PDCR – 6months (Professional Diploma)	July 2009	Clinical Research
Manipal University, Karnataka state, India.	Certificate course – 6 months	June 2010	Epidemiology, Biostatistics and Research Methodology
Kasturba Medical College, Manipal University, Karnataka state, India	MSc.Medical Pharmacology (3 year, Faculty of Medicine PG course)	Aug.2010	General pharmacology, systemic pharmacology, clinical pharmacology and experimental pharmacology
Tamil Nadu Physical Education and Sports University, Chennai	MSc.Yoga and Naturopathy (2 year Distance education)	May 2016.	Yoga, Naturopathy, Diet therapy
Manipal University, India	PhD (Experimental Pharmacology and drug discovery)	May 2014 – Octo. 2019.	Nephroprotection studies of aqueous extract of Vernonia cinerea (Asteraceae) and its fractions against cisplatin induced damage - An experimental pharmacological approach
Yenepoya University, Mangalore	Certificate Course	June 2020 – Dec 2020	Palliative Care with Emphasis on Geriatric Care

PROFESSIONAL MEMBERSHIPS

- 2005 The Indian Practitioners' co-operative pharmacy & stores Limited
- 2011 Central Council for Indian Medicines, Government of India
- 2011 Indian Pharmacological Society
- 2012 World Association of Medical Editors
- 2013 International Society of Ethnobiology
- 2013 Society for Indian Medical Anthropology
- 2014 Indian Association for the study of traditional Asian Medicine
- 2015 Asian Council of Science Editors
- 2019 The Karnataka Ayurveda and Unani Practitioners Board, Bangalore

CONTRIBUTION TO SCIENTIFIC PUBLICATION:

- ❖ **Founder and Associate Editor from Jan 2012 to December 2017**
International Journal of Pharmacology and Clinical Sciences (eISSN: 2278-0068)
- ❖ **Editorial Board Member since July 2015**
Journal of Ayurvedic and Herbal Medicine : www.ayurvedjournal.com
- ❖ **Freelance copyeditor of Manipal University Press since August 2016**
- ❖ **Editorial Board Member since January 2017**
Journal of AYUSH Research : <http://www.ayushresearch.com/>
- ❖ **Regular external reviewer for the following science journals**
 - African Journal of Pharmacy and Pharmacology
 - African J of Agricultural Research
 - African Journal of Plant Science
 - Journal of Cell and Animal Biology
 - Journal of Medicinal Plants Research
 - Scientific Research and Essays
 - Wudpecker Journal of Medicinal Plants
 - Global Health Action
 - Journal of Ayurveda and Integrative Medicine
 - International Journal of Biochemistry and Biotechnology
 - International Journal of Advance Agricultural Research
 - Journal of Ethno pharmacology
 - BURNS
 - Journal of Traditional and Complementary Medicine

PROFESSIONAL HONORS

Activity	Period/date	Field	Institution/Body
Member (Expert) in curriculum committee for BSMS and MD courses	Since 2011	Siddha System of Medicine	Central Council for Indian Medicine, Govt. of India (Apex body for Indian Traditional Medicines)
Chairperson for a scientific session	Dec.2011	National Seminar on Research in Health	Auxilium Research Cell, India
Resource person	Dec. 2011	To demonstrate burn wound rat model to delegates	XLIV Annual Conference of Indian Pharmacological Society, India
Associate editorship	January.20	International Journal	Indian Siddha Medical Graduates

	12	of Pharmacology and Clinical Sciences – www.ijpcs.net	Association, India
Resource talk	April 2012	Recent researches in Traditional Medical systems for cancer	World Siddha Doctors Meet organized by Indian Siddha Medical Graduates Association, India.
Resource talk	April 2013	Comparative in-vitro studies of three herbometal anticancer Siddha drugs	World Siddha Doctors Meet organized by Indian Siddha Medical Graduates Association, India.
Expert in 23 members committee of CCIM to discuss the new Indian govt. agenda	July 2014	Suggestions on functioning of Medical councils and steps for achieving task on Traditional Medicine	Central Council for Indian Medicine, New Delhi.
Chairman Scientific committee	September 2014	Coordinating scientific activities of association	Indian Siddha Medical Graduates Association, Kanyakumari
Demonstrator	11 October, 2014	Hands-on workshop on Basic Techniques of Molecular Biology	Dept. of Pharmacology, KMC and MMMC, Manipal University.
Co-Chairperson	18 December, 2014	In a scientific session of oral presentation	2 nd International Conference on Ayurveda, Unani, Siddha and Traditional Medicine, Colombo.
Key note speaker	18 December, 2014	In a scientific session.	2 nd International Conference on Ayurveda, Unani, Siddha and Traditional Medicine, Colombo.
Editorial Board Member	16 July 2015	Journal of Ayurvedic and Herbal Medicine - www.ayurvedjournal.com	JSIR Publishing, New Delhi
Invited talk	10 August 2015	Recent trends in Phytomedicines used in Management of Diabetes.	CME on ‘Management of Non Communicable Diseases’ Organized by Center for Traditional Medicine & Research (With Grant in Aid by Ministry of AYUSH) at Chennai.
Felicitatation talk	18 October 2015	2nd Interstate Yoga Championship 2015 at Palaniappa Matriculation Hr.Sec.School, Avinashi, Tamil	Organized by Gomukeshwara research institute of yoga & naturopathy, Coimbatore.

		Nadu.	
Invited as an expert in Cancer researcher in Traditional Medicine to give inputs	3-4 March, 2016	India-US workshop on Traditional Medicine (focus on cancer research)	Organized by Ministry of AYUSH, Govt. of India, New Delhi
Invited for a guest talk in National Workshop on Integrative Healing.	25-27 April, 2016	Guest talk on “Siddha: Instrument of Healing”	Organized by Sanchi University, Bhopal, Madya Pradesh
Invited for a guest talk in International Conference on Identifying and Protecting Indigenous Knowledge and Technology in Endangered Traditions	25 June 2016	Talk on “Integrative approaches to medicine through evidence-based research”	Jointly organized by The Nilgiris Education and Research Foundation (The NEAR Foundation), Nilgiris, India, Vetha Center for Transdisciplinary Studies, New Jersey, USA and JSS College of Pharmacy (JSS University), Nilgiris, India. Venue: JSS College of Pharmacy, Ooty, Tamil Nadu, India
Invited for a guest talk in First Shandong (Linyi) International Symposium on the Innovation & Development of Traditional Medicine	19-20 Sept 2016	On “Introduction to Siddha Diagnostic Methods, Drug Delivery System and Prospective of Siddha Medicine in Public Health”	Organized by The Department of Science and Technology, Shandong Province, China
Invited as an expert to demonstrate our prototype naadi instrument	27-28 Nov 2016	Brain storming session on digitization of naadi	Organized by Central Council for Research in Siddha and Center for Advanced Research & Development, VELS University, Chennai.
Invited as an Expert to give inputs in integrative Healing.	18-20 January, 2017	National Workshop on Integrated healing	Organized by Sanchi University, Bhopal, Madya Pradesh
Organized and delivered two talks in the National Seminar cum workshop ‘Management of Dermatological disorders and Cancer - moving towards an Integrative (Siddha & Modern) approach’	11-12 Feb 2017	Talk 1 - Introduction to Integrative Medicine Talk 2 - Concept of <i>putru noi</i> (cancer) and treatment plan using Traditional Siddha Medicine	Organized by Central Council for Research in Siddha (CCRS), Ministry of AYUSH, Govt. of India and Center for Integrative Medicine, Manipal University.
Invited for a guest talk in AYUSH Sponsored National Workshop on Scientific Validation, Development and Promotion of Siddha Medicine.	26 th March 2017	On “Reverse pharmacology and integrative Medicine: filling the gap using Traditional Siddha Medicine”	Organized by AU-KUB Research Centre, MIT Campus, Anna University, Chennai during 23-28 March 2017.

Invited for a guest talk in the CME	27 March 2017	On “Creating Evidence from Siddha Clinical Practice”	Organized by Velumailu Siddha Medical College and Hospital, Sriperumbudur, Chennai.
Invited for a guest talk among Indian communities at Minneapolis, Chicago, New Jersey, Wahsington, Virginia of USA	3 - 18 July 2017	On “Scientific basis for Traditional Siddha Medicine”	Organized by Federation of Tamil Sangams of North America (FeTNA), Minnesota Tamil Sangam, Vetha Center for Transdisciplinary Studies – New Jersey, USA
Invited for a guest talk in conference	8 Nov 2017	On “Role of Siddha in Integrated cancer care”	2 nd International Cancer Congress at Bangalore
Invited for a guest talk in 22 nd International conference on Frontiers in Yoga Research and its Application	5-8 Jan 2018	Siddha Medicine in Integrative putru-noi (cancer) care in Indian scenario	At Prashanti Kutiram (SVYASA Yoga University), Bengaluru.
Invited for a guest talk in workshop	4 Feb 2018	Siddha for Stress Free health	In the Workshop on Stress-The Modern Epidemic, organized by CIMR and MMMC, Manipal University.
Invited for a guest talk in preconference Workshop on Integrating AYUSH into Palliative Care	22 nd Feb 2018	AYUSH interventions for management of Mucositis	25 th Annual Conference of Indian Association of Palliative Care (IAPCON 2018)” at AIIMS, New Delhi.
Invited talk in Webinar	14 March 2018	Topic - Self assessment of health and balancing three dhosha (uyir thaathu) using dietary practices	Vetha Center for Transdisciplinary Studies, New Jersey, USA
Invited for a guest talk	30 June 2018	How to publish & List of good scientific journal publishing articles on medicinal plants & Research organizations related to research in Gunapadam	AYUSH funded one week workshop on “Research in Gunapadam”, at The Tamil Nadu Dr.MGR Medical University, Chennai.
Appointed as Chairman of the Scientific forum	8 October 2018	To develop AYUSH system globally	International Association of AYUSHPATHI, India.
Coordinated and resource person for a	28 November	Basic techniques in Histology and	64 th Annual National conference of Association of Physiologist &

workshop & Chairperson in the Conference for a session	2018	Immunohistology for Research on Plant Based Extracts	Pharmacologist of India, held at Kasturba Medical College, Manipal.
Invited Talk	12-14 Dec 2018	Traditional Siddha Medicine in Oncology (putru-noi) – scope and Challenges	International Conference on Conservation of Natural resources and Traditional Siddha Pharmacological Approach for your future, Organized by William Research Center, Kanyakumari
Honored with Academic Excellence award during CNRTSPA-2018 Conference	14 Dec 2018	In recognition of contributions dedicated services in the teaching, medicine and social awareness	Awarded by William Research Center, Kanyakumari
Invited talk on Integrative medicine for putru-noi (cancer) management – scopes and challenges	21 Dec 2018	In a National Seminar on Strength of Siddha in Various Disease Management	Organized by National Institute of Siddha, Ministry of AYUSH, Govt. of India, Chennai
Chairman Scientific Committee for Conference & Invited Talk	Dec 22, 2018	Cancer Management – Integrative Approach	2nd International Tradalth Convention (Dec 18-22, 2018) held at Cyberjaya University College of Medical Science, Malaysia
Invited to become the Expert for validation of Siddha formulations	8 Jan 2019	TKDL, CSIR, Govt. of India	Traditional Knowledge Digital Library, CSIR, Govt. of India, New Delhi.
Invited as guest speaker on ‘Interdisciplinary Approach in Indian System of Medicine’	21-22 Jan 2019	National conference on Educational Administration and Excellence in ISM	Organized by Central council of Indian Medicine, at IISc – Bangalore.
Invited as guest speaker on Management of Cancer –A Siddha perspective	18 Feb 2019	International AYUSH Conclave	Organized by Government of Kerala, India at Trivandrum
Invited as guest speaker on Importance of preclinical Studies on ASU formulation.	20 March 2019	Preparatory methods of AYSH medicine towards GMP standard with SOP for AUSH practitioners	Jointly organized by IMPCOPS-Chennai and Ministry of AYUSH.
Invited as guest speaker on ‘Siddha drugs for cardiovascular diseases’	27-28 March 2019	National Workshop on Approaches to cardiovascular studies in laboratory animals	Jointly organized by Center for Cardiovascular Pharmacology and Melaka Manipal Medical College, Manipal.

Invited as guest speaker for UG and PG students of GSMC, Chennai	23-09-2019 for PGs	‘Mapping post MD Siddha and Creating evidence from Research (thesis)’ for PGs	Government Siddha Medical College, Chennai
	27-09-2019 for UGs	‘After BSMS (Mapping the future) and creating evidence from clinical practice (Case report)’ UGs	
Invited as guest speaker to deliver talk at NIRALYAM 2020 event to UG students	31 January 2020	Scope and challenges in Pharmacology research in Siddha medicine	Government Siddha Medical College, Palayamkottai
Honorary Scientist for two years	8 March 2021	To carry out interdisciplinary research	at Sri Sri Institute for Advanced Research (SSIAR), Bangalore
Invited as guest speaker-6 days CME sponsored by RAV, Ministry of AYUSH	18 March 2021	Talk on patient safety, documentation and data handling for the cases of fistula and piles	Hands on training on the preparation and application of kaaranool (Siddha alkaline thread) for ano rectal diseases- organized by Kokila Siddha Hospital and Research Center, Madurai, Tamil Nadu
Invited as guest speaker	29 May 2021	Talk on Addressing public queries in online consultation – A Siddha perspective	Organized by Siddha Medical Association of India (Kerala Chapter)
Invited as guest speaker	21-23 June 2021	Talk on Siddha Medicine for Obesity: Holistic & Herbal Therapies	In 6 th International Conference on Obesity and Chronic Diseases, organized by United Scientific Group, USA.
Member of Institutional Ethics Committee	Since August 2021	Member as Basic Medical Scientist (Pharmacologist) and Clinician (Siddha)	Santhigiri Scientific Industrial Research Institute, Trivandrum
Invited as guest speaker	2 Sept 2021	Talk on Side effects of Siddha drugs – time to disclose for growth	Organized by Siddha Regional Research Institute, Trivandrum
Invited as guest speaker	8 Sept 2021	Talk on Mapping the future of BSMS	Organized by Unit of Siddha Medicine, Eastern University,

			Srikanka
Invited as guest speaker	24 Sept 2021	Talk on Scopes in Siddha Pharmacology for Student project & How to guide students in gunapadam (Siddha pharmacology) research	CME on validation of Siddha Therapeutics towards Global Acceptance, Organized by National Institute of Siddha, Chennai
Invited as guest speaker	27 Oct 2021	Talk on Integrating Siddha in oncology practice	Organized by Unit of Siddha Medicine, Eastern University, Srikanka
Became Member of Institutional Ethics committee of KMC	6 Dec 2021	Member – Nonaffiliated of IEC of KMC&H, Manipal	Became Member of Institutional Ethics committee of KMC
Invited as plenary speaker	13-15 Dec 2021	Talk on Pediatric Siddha drugs - the potential area in Pharmacology	4th International conference on Multidisciplinary approach on conservation of nature for your Future, at Kanyakumari, organized by Williams Research Center.
Invited as guest speaker	15 March 2022	Talk on ‘Clinical Toxicology in Siddha Medicine practice, What a Siddha Physician should know & do’	CME on Recent approaches in Siddha Toxicology for Doctors, organized by National Institute of Siddha, Chennai
Invited as guest speaker	19-20 March 2022	Talk on “Comparative effect of serankottai nei and notchi kudineer on induced endometriosis in Sprague Dawley rats”	Sixth National Conference on Siddha Medicine for All Ages, organized by Friends of Siddha Medicine at St.Xavier’s College, Palayamkottai.
Keynote speaker	20-21 May 2022	Talk on ‘Ancient and Modern Yoga for Holistic health’	International Conference on Ancient and Modern Yoga for Holistic Health, organized by Department of Yoga, Tamil Nadu Physical Education and Sports University, Chennai.

AWARDS

Awards	Date	For	Institution/Body
University First	Aug.2010	MSc.Pharmacology (Faculty of Medicine)	Manipal University, India
Academic excellence in PG	Sept.2011	All India rank for MSc.Pharmacology	Jawaharlal Nehru Memorial Fund, Delhi, India
Best poster award	October 2013	Poster titled 'Tender coconut water enhances the activity of hydrochlorothiazide in rates: in reducing renal excretion of calcium and uric acid'	Symposium on 'Food as Medicine' jointly organized with Indo-Queensland Research Initiative Project Fund and Department of Pharmacy Practice, at MCOPS, Manipal University – Oct. 2013
Certificate of appreciation	Sept 5, 2014 (On Teachers day of India)	For my talk 'Home Herbal garden: A Live Pharmacy'	Manipal Centre for Professional and Personal Development, Manipal University.
Second Position in poster competition	April 6-8, 2015.	Poster titled "Effect of aqueous extract of <i>Vitex negundo</i> on induced endometriosis in Sprague Dawley rat"	Student Research Poster Competition 2015, by Manipal University Student's Research Forum, Manipal, India.
Best poster award	26-27 October 2015	Title " <i>Neichitti kashayam</i> (<i>Vernonia cinerea</i> aqueous extract) protects nephrons against cisplatin induced damage - a pilot study in African green monkey kidney (Vero) cells and mice"	In the conference "Global Summit on Herbals and Natural Remedies", at Chicago
Appreciation award	1 November 2015	Talk on Siddha Medicine (The Current applicability of Traditional Indian Medicines) – at Community Center, Kenilworth Ave, Oak Park, Chicago, USA	Organized by Chicago Tamil Anbargal
Best Paper-IJPCS 2015	14 April 2016	For my article "Effect of <i>Notchi kudineer</i> (<i>Vitex negundo</i> aqueous extract) on surgically induced Endometriosis in Sprague Dawley rats"	Awarded by Award in International Journal of Pharmacology and Clinical Sciences
Best poster award	5 November 2016	Effect of different edible oils on the serum lipid	Awarded during Mentored Student Project Poster Presentation, organized

		profile in rats	by Melaka Manipal Medical College, Manipal University.
Appreciation award	1 July, 2017	In recognizing my pioneering efforts in Siddha Medicine	By Federation of Tamil Sangams of North America (FeTNA) and Minnesota Tamil Sangam, at USA.
Best presentation award	2-3 July, 2017	<i>Neichitti Kashayam (Venonia cinerea)</i> protects cisplatin induced proximal tubular damage : an experimental study in mice	In International Symposium on Traditional Siddha Medicine at Minneapolis Convention Center Minneapolis, USA
Best poster presentation award	4 May 2019	To investigate the effects of black and white and basic colors on memory and recall.	Awarded during Mentored Student Project Poster Presentation, organized by Melaka Manipal Medical College, Manipal University.

GUIDING STUDENTS (MBBS, MSc, PhD) AND PhD EXAMINER

PhD guideship in Manipal University: Ref.No:2019122, since 23 November 2019

PhD guideship in Career Point University : Ref.No:GRG2020524, since 2020

Status of the guide	Period/ date	Title	Institution/Body
Mentored Students projects for MBBS students	2011-2012	Exercise and general wellbeing amongst employees at Melaka Manipal Medical College, Manipal	Melaka Manipal Medical College, Manipal
Mentored Students projects for MBBS students	2011-2012	Evaluation of Diuretic Effect of Green Tender coconut Water in Albino Rats.	Melaka Manipal Medical College, Manipal University
Mentored Students projects for MBBS students	2012-2013	Wound healing activity of <i>Shorea robusta</i> based traditional ointment in excision wound model	Melaka Manipal Medical College, Manipal University
Mentored Students projects for MBBS students	2012-2013	Anthropometrical Proportion Based on Index Finger Breadth among Student Population	Melaka Manipal Medical College, Manipal University
Project for MSc students	2012-2013	Wound healing effect of three traditional Medicated oils (<i>kayathirumeni ennai</i> , <i>Pungu thailam</i> and <i>mathan thailam</i>) on experimentally induced burn wounds in Wistar rats	Dept. of Pharmacology, Kasturba Medical College, Manipal University

Project for MSc students	2014-2015	Study on effect of oral <i>Serankottai nei</i> (a Siddha drug) on induced endometriosis in rats	Dept. of Pharmacology, Kasturba Medical College, Manipal
M.Tech Biomedical Engineering thesis	2014-2016	Acquisition and Analysis of Naadi Signals (ancient pulse examination)	Manipal Institute of Technology, Manipal University
Mentored Students projects for MBBS students	2015-2016	Influence of different fruit juices on wound healing in excision wound model	Melaka Manipal Medical College, Manipal University
Mentored Students projects for MBBS students	2015-2016	Effect of different edible oils on serum lipid profile in rats	Melaka Manipal Medical College, Manipal University
Member of Doctoral Advisory committee (Subject expert) for PhD in Siddha Medicine & Co-PI	23 April 2013 to April 2017	For the Phd topic: Physiochemical characterization and toxicity assessment karuppu class of Siddha Medicine (Reg.No: 130900033)	Dept. of Biotechnology, Manipal Institute of Technology, Manipal University
Member of Doctoral Advisory committee (Subject expert) for PhD in Siddha Medicine & Co-PI	March 2017 to March 2021	For the PhD topic: Effect of <i>Kadukkai Mathirai</i> (Siddha herbal preparation) in experimentally induced liver disease in rats (Reg.No:171300001)	Dept. of Pharmacology, Melaka Manipal Medical College, Manipal University
PhD thesis evaluator/examiner	March. 2017	For the PhD topic: Evaluation of safety and efficacy of <i>nandukkal parpam</i> in <i>kalladaipu</i> (urolithiasis)	The Tamil Nadu Dr.MGR Medical University, Chennai
Mentored Students projects for MBBS students	2017 – 2018	Evaluation of effect of edible oils on intestinal motility in swiss albino mice	Melaka Manipal Medical College, Manipal University
Member of Doctoral Advisory committee (Subject expert) for PhD in Siddha Medicine & Co-PI	May 2018 to May 2022	A study to evaluate and compare efficacy of <i>Vetpalai thailam</i> and <i>Sivanar vembu kuzhi thailam</i> in mouse model of psoriasis like inflammation	Dept. of Pharmacology, Melaka Manipal Medical College, Manipal University
PhD thesis evaluator/examiner	November 2018	For PhD topic: Studies on hepatoprotective activity of Ayurvedic formulation LIVORAL by in-silico, in-vitro and in-vivo methods	Anna University, Chennai
Mentored Students projects for MBBS students	2018 – 2019	To investigate the effects of black and white and basic colors on memory and recall	Melaka Manipal Medical College, Manipal University
Mentored Students projects for MBBS students	2018 – 2019	Perception on animal experiments among medical (MMMC) students	Melaka Manipal Medical College, Manipal University

Bachelor of Optometry – thesis	2018-2019	Effectiveness of alternative therapies in treating refractive errors - a systematic review	Manipal College of Health Professionals
ICMR studentship project	2019-2020	Can the ultra-radian rhythm of nasal cycle (a peripheral manifestation of alternating cerebral hemispherical activity) be used to predict the prognosis of stroke recovery?	Kasturba Medical College, Manipal
Co-PI	2019 - 2024	Clinical outcomes of Siddha standard of care in psoriasis patients with HLA-Cw6 allele	Division of Siddha, Center for Integrative Medicine and Melaka Manipal Medical College
Co-Guide for PhD (Ms.Deksha)	2019 – 2024	Molecular mechanism of antipsoriatic drugs, vetpalai thailam and sivanar vembu kuzhi thailam and influence of certain dietary factors on the development of psoriasis using imiquimod induced inflammatory mice model	Division of Siddha, Center for Integrative Medicine and Melaka Manipal Medical College
Guide for PhD (Mr.Madhavan)	2019-2023	Analytical study on personality and cognitive aspects of yoga psychology	Career Point University, Rajasthan

SPECIAL TRAINING UNDERWENT:

1. Application of SPSS and SAS in biostatistics -1month at Dept. of Biostatistics, Manipal University.
2. Animal House Keeping and animal experiments at Central Animal House, Kasturba Medical College, Manipal University.
3. Clinical Trial studies -2 months at Manipal-Acunova, Manipal.
4. Workshop on Study Designs for Evaluation of Drugs Acting on Central Nervous System in Animals at KMC, Mangalore - Aug. 2009.
5. Research Methodology and Biostatistics at KMC, Manipal – Sept.2011
6. Refresher course (2 weeks) on Cell and Molecular Biology Techniques – organized by Indian National Science Academy and TIFAC at Manipal Life Science Center, Manipal University, India Jan.2012
7. ‘Varma therapy – Beginners Training Programme, Stage I (SEEDAN), at Centre for Varma Medicine and Research, Kanyakumari – July 2013.

8. One week Hands-on Workshop on “Human/Cancer cell culture Techniques & MTT Assay”, at International Center for Stem Cells, Cancer and Biotechnology (ICSCCB), Pune, India – Jan.4-10, 2014.
9. Two day workshop on Copyediting, at Manipal University Press, Manipal – 17 to 18 June 2016.
10. Four days Advanced Public Speaking Course, at Manipal Center for Professional and Personal Development (MCPD), Manipal University – October 25,27, November 3,5-2016
11. Two day Workshop on Systematic Reviews, at Manipal College of Nursing, Manipal – 29-30 Nov 2016.
12. Three days National workshop on Survey Research and Statistical Analysis, at Manipal Academy of Higher Education, Manipal – September 6-8, 2018.
13. Completed 10 days course on “A Primer to Medical Genetics”, organized by Department of Medical Genetics, Kasturba Medical College, Manipal. – 19-31, august 2019.
14. Completed one week Varmam and external therapies training at Government Siddha Medical College, Chennai during 23-29 September 2019.

AWAERENESS TALK ON SIDDHA and ENVIRONMENT

1. Introducing Siddha Medicine to you – to Medical Faculties at Melaka Manipal Medical College, 2011.
2. Traditional & Complementary Medicine (TCM) – to First year medical students of Melaka Manipal Medical College, 2012.
3. Home Herbal garden : A Live Pharmacy – to faculties of Manipal University at Dept. of MCPD, on 1 June 2013.
4. Siddha Medicine and global perspective – to Students of Trincomalee Siddha Medical College, Trincomalee, Sri Lanka, on 19 December 2014.
5. Siddha Medicine and its current application – at Community Center, Kenilworth Ave, Oak Park, Chicago, USA – on 1 November 2015. Organized by Chicago Tamil Anbargal.
6. Biodiversity and its Conservation through insects (entomology) - to Medical Faculties at Melaka Manipal Medical College, June 2017.
7. Guest talk was delvierd on “Traditional Medicine : Past-Present-Future” in Renton Technical College - Seattle, Vetha Center for Transdisciplinary Studies – New Jersey and South Baylo University – Virginea, USA during 3-19 July 2017.
8. Delivered talk on “Environment protection: Let us start from individual” - to Medical Faculties at Melaka Manipal Medical College, June 2018.

9. Delivered 6 webinar talk on “COVID-19-preventie care through Siddha system of Medicine” for the Indian origin people at USA –26 March 2020, 29 March 2020, 5 April 2020, 11 April 2020, 18 April 2020, 26 April 2020.
10. Delivered webinar talk on “How to convert Day to day clinical practice into a Research – Focus on Case Reporting” to students of Government Siddha Medical College, Palayamkottai, 17 May 2020. <https://youtu.be/YIAnpL26ZIA>
11. Delivered a webinar talk “Integrative Management of putru noi (cancer) using Siddha” to JIGNASA (Association of Ayurveda Practitioners, Kerala) on 18 May 2020. <https://www.facebook.com/watch/?v=240706047205740>
12. Delivered webinar talk on “What is next after BSMS? - Be prepared” to students of Government Siddha Medical College, Palayamkottai, 23 May 2020. <https://youtu.be/iKtqtkZPM2s>
13. Delivered webinar talk on “Integrated Medicine for Next Generation: Siddh’s Prespective” to students of Nandha Siddha Medical College and Hospital, Erode, 19 June 2020. <https://youtu.be/Gy6gacH0PAE>
14. Delivered webinar talk on “Integrative Siddha in Oncology Practice” to students of Sivaraj Siddha Medical College, Salem, 25 June 2020. <https://youtu.be/KJZ2M89o9dk>
15. Delivered webinar talk on “Effective presentation in International Conferences” to students of Sairam Siddha Medical College, Chennai, 08 July 2020.
16. Delivered webinar talk on “Conventional Chemotherapy in Siddha System of Medicine” to students of Sairam Siddha Medical College, Chennai, 20 July 2020.

CONFERENCE ORAL/POSTER PRESENTATION

1. International Conference on Traditional Medicine at Penang, Malaysia – Nov.2011
Topic: Chemical Standardization, acute toxicity study and invitro anticancer activity of *Putru Pathangam*, a siddha Metallic anticancer drug.
2. National seminar on “Enhancement of quality in Research Publications and Recent Research in Water, Alternative energy resources, Materials and Health” at Vellore, Tamilnadu – Dec. 2011.
Topic: Effect of soaking of *Phyllanthus emblica* wood in drinking water for purification.
3. XLIV Annual Conference of Indian Pharmacological society, Manipal – Dec 2011.
Topic: Effect of ethanolic extract of the leaf of *Plectranthus amboinicus* on the healing of burn wounds in Wistar rats.

4. Malaysian - Scottish Urological Conference, Kuala Lumpur, Malaysia – Nov 2012.
Topic: Effect of tender coconut water on urinary excretion of calcium and uric acid in rats.
5. International Conference on Global public health at Colombo, Sri Lanka – Dec. 2012.
Topic: Hepatoprotective activity of *Kadukkai maathirai* (a Siddha polyherbal formulation) against carbon tetrachloride induced liver damage in rat
6. 5th International Conference on Medicinal Plants and Herbal Products at Manipal – Jan 2013.
Topic 1: Safety profile of *kadukkai maathirai* (A siddha polyherbal formulation) in Wistar rats.
Topic 2: Anticancer activity of *thamira kattu chendooram*, a copper based Siddha formulation against HCT-116.
Topic 3: In-vitro anticancer activity of *neeradimuthu vallathy mezhugu* – a polyherbal Siddha formulation.
7. Ramanbhai Foundation 6th International Symposium “Advances in New Drug Discovery Technologies and Translational Reseach” at Ahmedabad – Feb 2013.
Topic: Anticancer potential of chloroform extract of chitramoola kuligai against human breast cancer (MCF-7) cell line.
8. National Seminar on Anthropology of Traditional Indian Food, at Mysore – March 2013
Topic: Effect of different stage tender coconut water on urine excretion in rats
9. Hong Kong Pharmacy conference 2013, at Hong Kong – March 2013.
Topic: *Kadukkai Maathirai* (A Traditional Indian Polyherbal Formulation) Improves Haemoglobin, Mean Corpuscular Volume and Serum Ferritin: Open-Label, Single Arm Study in Anaemia of South India. **[Obtained travel grant from ICMR]**
10. VIII International Conference on Traditional Asian Medicines, at Sancheong, South Korea – September 2013.
Topic 1: Chemical analysis and evaluation of anticancer activity of *thamira kattu chendooram*, a siddha nano-formulation in Ehrlich Ascites Carcinoma bearing mice. .
[Obtained travel grant from DST]
Topic 2: Physico-chemical evaluation of pavala silasathu parpam, a marine based Siddha drug
Topic 3: Sub-acute toxicity study of linga pathangam, a mercury based Siddha drug in rats
11. Symposium on Food as Medicine, jointly organized with Indo-Queensland Research Initiative Project Fund and Department of Pharmacy Practice, at MCOPS, Manipal University – Oct. 2013

Topic : Tender coconut water enhances the activity of hydrochlorothiazide in rats: in reducing renal excretion of calcium and uric acid. **[Awarded as Best poster]**

12. International Humboldt Kolleg on Bench to Bedside Translational Research : Potential Benefits of Interdisciplinary Collaboration, at KMC, Manipal – Nov.2013.

Title poster: *Thamira Kattu Chendooram* induces apoptosis by intrinsic pathway in human hepatic carcinoma cells: Scientific evidence for anticancer activity of traditional Siddha herbo-metal nano formulation.

13. 2nd International Conference on Ayurveda, Unani, Siddha and Traditional Medicine, at Institute of Indigenous Medicine, Colombo, Sri Lanka – 16-18 December 2014.

Poster title: Topical Treatment Of Common Warts Using Kaalaanikalimpu (A Siddha Drug): A Report

14. 47th Annual Conference of the Indian Pharmacological Society (IPSCON Guwahati-2014), Guwahati, Assam, India – 28th – 30th December 2014.

Poster title: *In-vitro* anticancer activity of chloroform extract of *nandhi mezugu* (A Siddha anticancer formulation) in different cancer cell lines.

15. International Symposium on Fertility Preservation: From Basic Research to Clinical Applications, KMC, Manipal University, India – 28 Feb to 1 March, 2015.

Poster title: Protective effect of *Vernonia cinerea* in cisplatin induced testicular damage in mice – a pilot study.

16. Student Research Poster Competition 2015, by Manipal University Student's Research Forum, Manipal, India – 6-8, April, 2015.

Poster title : Effect of aqueous extract of *Vitex negundo* on induced endometriosis in Sprague Dawley rat. **[Awarded as second prize].**

17. 1st International Seminar on Siddhar Science 2015, at International Institute of Tamil Studies, Chennai, India – 14 April 2015.

Oral presentation: The view of Tirumandiram (the classical Tamil literature) on basic principles of Siddha Medicine.

18. Global Summit on Herbals and Natural Remedies, at Chicago, USA – 26-27 October, 2015.

Topic: *Neichitti kashayam* (*Vernonia cinerea* aqueous extract) protects nephrons against cisplatin induced damage - a pilot study in African green monkey kidney (Vero) cells and mice. **[Awarded as Best poster]**

19. I was the co-author in this presentation: 48th Annual Conference of the Indian Pharmacological Society (IPSCON) - 2015, Saurashtra University, Rajkot ON-2015, Saurashtra University, Rajkot. Title of poster : Effect of *Kungiliya Vennai* on Excision Wound Healing in Albino Wistar Rats.
20. 4th International conference of the Society for Ethnopharmacology, at Uka Tarsadia University, Gujarat – 23-25 February 2017.
Topic for oral: In-vitro cytotoxic activity of *Indigofera aspalathoides* against human histiocytic lymphoma (U937) cell lines.
21. 22nd Dubai International Pharmaceuticals and Technologies Conference and Exhibition (DUPHAT)' at Dubai - 7-9 March 2017.
Topic for poster: Chemical standardization of *serankottai nei* (a Siddha herbal drug) and its effect on surgically induced endometriosis in rats
22. International Symposium on Traditional Siddha Medicine at Minneapolis Convention Center Minneapolis, USA during 2-3 July, 2017.
Topic for oral presentation: *Neichitti Kashayam (Venonia cinerea)* protects cisplatin induced proximal tubular damage : an experimental study in mice. [**Awarded as Best presentation**]
23. National conference on “Trends in Bioactive Natural Products and Health Care” at Chikka Aluvara, Kodagu, Mangalore University – 2 & 7 October 2017.
Topic 1 for oral presentation : Comparative Cytoprotective Activity Of *Venonia Cinerea* Fractions On Human Embryonic Kidney (Hek293) Cells, Human Liver Carcinoma (Hepg2) Cell Lines And Human Cervix Epitheloid Carcinoma (Hela) Cell Lines against Cisplatin Induced Toxicity

Topic 2 For Oral Presentation : Phytochemical Screening And HPTLC finger Printing Analysis Of *Nandhi mezhugu*, A Siddha Medicine

Topic 2 For Oral Presentation : *Vernonia cinerea* Protects Against 5-Fluorouracil Induced Intestinal Mucositis In Mice.
24. International Academy of Science, Technology, Engineering and Management at Malaysia – 20-21 February 2019.
Topic for oral presentation: Effect of Edible Oils on Intestinal Motility and Body Temperature in Swiss Albino Mice.

GRANTS

1. Travel grant obtained from Indian Council for Medical Research, India (No. 3/2/TG-37/HRD-2013, dated 19.2.2013) - To present my research paper on “*Kadukkai Maathirai* (A Traditional Indian Polyherbal Formulation) Improves Haemoglobin, Mean Corpuscular Volume and Serum Ferritin: Open-Label, Single Arm Study in Anaemia of South India” at Hong Kong Pharmacy conference 2013, at Hong Kong – March 2013.
2. Travel grant obtained from Department of Science and Technology, India (SB/ITS-Y/02789/2013-2014) - To present my research “Chemical analysis and evaluation of anticancer activity of *thamira kattu chendooram*, a siddha nano-formulation in Ehrlich Ascites Carcinoma bearing mice” at 8th International Conference on Traditional Asian Medicines, at Sancheong, South Korea – September 2013.
3. Grant Rs.94,000/- has been obtained from Central Council for Research in Siddha (CCRS), Ministry of AYUSH, Govt. Of India to organize National Seminar cum Worksop on Management of Dermatological Disorders and Cancer – moving towards an Integrative (Siddha & Modern) approach (Ref.No:8-14/2015-CCRS/Estt/2768, dated 19.01.2017). The workshop was organized jointly by Divison of Siddha, Center for Integrative Medicine and Reserch & Dept. of Pharmacology, Melaka Manipal Medical College.
4. “Development of Pharmacopoeial monographs on single drugs/ compound formulations / Atlas / Extracts” has been (Rs.10 Lakhs) obtained (Ref: PCIM/6-10/Tech/EOI/Siddha/2016-17/1013, dated 9-2-17) by Pharmacopoeia Commission for Indian Medicine & Homoeopathy, Ghaziabad.
5. “Discovery of natural special stains for diagnosis of pathological lesions” (Rs.2 Lakhs) from Health India Foundation, Chennai. 29 February 2019.
6. To setup “Center for Advanced Research in Siddha, Varmam and Integrative Medicine” at MAHE (Rs.2.2 Crores) from Global Center for Siddha Medicine and Research (Indo US NGO at North Carolina-USA & Chennai-India)

PUBLISHED PAPERS:

Scopus Author ID: 35789779800, Orcid.org ID: 0000-0002-6331-1047, ResearcherID: Q-1556-2017

1. Shanbhag T, **Amuthan A**, Shenoy S, Shdhakar. Effect of Phyllanthus niruri.Linn on burn wound in rat. Asian Pacific Journal of Tropical Medicine 2010;3:105-8.
2. Shrestha J, Shanbhag T, Shenoy S, **Amuthan A**, Prabhu K, Sharma S, et al. Anovulatory and abortifacient action of Areca catechu nut in female albino rats. Indian J Pharmacology 2010; 42:306-11.
3. Shanbhag T, Kodidela S, Shenoy S, **Amuthan A**, Kurra S. Effect of Michelia champaca petals on burn wound healing in rats. International journal of pharmaceutical sciences Reviews and Research 2011;7:112-5.
4. Kafle S, Shanbhag T, Shenoy S, **Amuthan A**, Prabhu K, Mohan S, et al. Antifertility action of areca nut in male rats. International journal of pharmaceutical sciences Reviews and Research 2011;10:79-82.
5. **Amuthan A**, Chogtu B, Bairy KL, Sudhakar, Prakash M. Evaluation of diuretic activity of Amaranthus spinosus Linn. aqueous extract in Wistar rats. Journal of Ethnopharmacology 2012; 140: 242-7
6. Sathish R, Murugesan R, **Amuthan A**. Chemical Standardization of Mega Sanjeevi Mathirai; a traditional Siddha drug. International Journal of Pharmacology Research and Review 2012;13:35-8.
7. Sathish, Pandian S, **Amuthan A**. Effect of soaking of Phyllanthus emblica wood in drinking-water for purification. Int J Pharmacol and Clin Sci 2012;1:19-23.
8. Velayudam, Ilavarasan, **Amuthan A**. Physico-chemical evaluation of kadukkai maathirai and its tablet formulation, a Siddha iron preparation used in anaemia. Int J Pharmacol and Clin Sci 2012;1:3-8.
9. Shenoy S, Sukesh, Vinod MS, Shruthi, Amberkar M, **Amuthan A**. Effect of ethanolic extract of Plectranthus amboinicus leaf on healing of burn wound in Wistar rats. International Journal of Applied Biology and Pharmaceutical Technology 2012;3:32-5.

10. Sathish R, Madhavan R, Vasanthi RH, **Amuthan A**. In-vitro alpha-glucosidase inhibitory activity of abraga chendhooram, a Siddha drug. *Int J Pharmacol and Clin Sci* 2012;1:74-6.
11. Velayudam, **Amuthan A**, Ilavarasan. Hepatoprotective activity of kadukkai maathirai (A Siddha polyherbal formulation) against carbon tetrachloride induced liver damage in Rat. *Res J Pharmaceutical Sci* 2012;1:17-21.
12. **Amuthan A**, Subramaniam BS. 18 Siddhars and Siddha Medicine: The forgotten Indian Saints and their Medical Knowledge. *University News* 2013;51:41-44 & 53.
13. Subramaniam BS, **Amuthan A**, D' Almeda PM, Arulkumar. Efficacy of Gamat extract in wound healing in albino Wistar rats. *Int J Pharm Sci Rev Res* 2013;20:142-5.
14. Velayudam, Ilavarasan, **Amuthan A**. Acute and 28-day Subchronic Oral Toxicity study of *Kadukkai maathirai*, an Iron based Siddha herbal formulation in Wistar albino rats. *International Journal of Pharmacy and Pharmaceutical Sciences* 2013;5:186-91.
15. Mekala S, Kumar NM, Das L, Shetty N, **Amuthan A**, Vulli V, et al. Evaluation of wound healing activity of ethanolic extract of *Lanrana camara* in streptozotocin induced diabetic rats. *International Journal of Pharmacy and Pharmaceutical Sciences* 2014;6:631-3
16. Junjaiah VK, Bhimalli S, Shenoy S, Pai A, **Amuthan A**, Shanbhag TV. A Prospective study of the drug prescribing rate and pattern and assessment of adverse drug reactions in patients with idiopathic Parkinson disease in a tertiary care hospital. *American J Phytomedicine and clinical Therapeutics* 2014;2:420-9.
17. Bharat M, Verma DK, Shanbhag V, Rajput RS, Nayak D, **Amuthan A**. Ethanolic extract of oral Areca catechu promotes burn wound healing in rats. *Int J Phar Sci Rev Res* 2014;15:145-8.
18. Sabarianandh JV, Uma VK, Fernandes DL, **Amuthan A**, Jasphin S, Shanbhug TV, et al. Wound healing effect of three traditional medicated oils (Kayathirumeni ennai, pungu thailam and mathan thailam) on experimentally induced burn wounds in Wistar rats. *World J of Pharmacy and Pharmaceutical Sciences* 2014;3:1307-13.
19. Sathish R, Devi, **Amuthan A**. Preparation, chemical analysis and sub-acute toxicity evaluation of linga pathangam (a mercury based siddha herbo-metallic drug) in rats. *International J Pharmacy and Pharmaceutical Sciences* 2014;6:649-53.

20. Bhandarkar AP, Sherkhane RM, Shenoy GK, Aniketana GV, Shetty MS, **Amuthan A**. Intern's knowledge of clinical pharmacology and therapeutics: a retrospective view in light of medical undergraduate training. *World Journal of Pharmaceutical Research* 2015;4:1041-56.
21. Thambyayah M, **Amuthan A**. Infantile Seborrheic Dermatitis: A Paediatric Siddha Medicine treatise. *Clin Dermatol* 2015;33:355-61.
22. **Amuthan A**, Dhas SI, Bhandarkar AP, Devi V. The cost effective cure without scar: three cases of warts successfully treated with Kaalaani Kalimpu (a Traditional Siddha drug). *International Research Journal of Pharmacy* 2015;6:294-8.
23. **Amuthan A**, Anandh S, Musharraf S, Agarwal N, Devi V, Shenoy RP, Nayal B. Effect of Notchi kudineer (*Vitex negundo* aqueous extract) on surgically induced endometriosis in Sprague Dawley rats . *Int J Pharmacol and Clin Sci.* 2015;4(3):35-43.
24. Mekala, Sathish, **Amuthan A**. Physico-Chemical Evaluation of Pavalasilasathu Parpam, a Marine based Traditional Siddha Drug used in Leucoderma and Infectious Conditions . *Int J Pharmacol and Clin Sci.* 2015;4(3):44-47.
25. Bhat V, **Amuthan A**, Rosli BBM, Khairuddin NAB, Md. Isa FSB. Effect of Kungiliya vennai and Kalchunnam thailam on excision wound healing in albino Wistar rats. *Int J Pharmacol and Clin Sci.* 2015;4(3):52-57.
26. Senthilvel G, **Amuthan A**, Kumar KNS. Phytochemical Standardization of Serankottainai (a Siddha drug from milk extract of *Semecarpus Anacardium* nuts) and its in-vitro antitubercular activity against H37Rv strain. *Int J Pharmacol and Clin Sci.* 2016;5(1):17-24.
27. Senthilvel G, **Amuthan A**, Jasphin S. Pediatric liver diseases and its management by herbals: A Traditional Siddha Medicine treatise. *Int J Pharmacol and Clin Sci.* 2016;5(1):32-40.
28. Amirthalingam M, Kasinathan N, **Amuthan A**, Mutalik S, Reddy MS, Nayanabhirama U. Bioactive PLGA - curcumin microparticle-embedded chitosan scaffold: in vitro and in vivo evaluation. *Artificial Cells, Nanomedicine, and Biotechnology.* 2017;45(2):233-241. (2014 IF-1.015)
29. NK, S SS, S B, **Amuthan A**, NV AK, N B. Physiochemical characterization and cytotoxicity evaluation of mercury-based formulation for the development of anticancer therapeutics. *PLoS ONE.* 2018;13(4): e0195800.

30. Shetty M, Shenoy S, Devi V, Kumar N, **Amuthan A**, Shenoy KG, Pavithra P. Protective effect of *Kadukkai Maathirai* (*Terminalia Chebula* based polyherbal Siddha formulation) in ethanol-induced liver disease in rats. *Asian J Pharmaceutical and Clinical Research*. 2018;11(11):368-71.
31. Senthilvel G, **Amuthan A**. Application of Varmam (Physical Manipulation Therapy of Traditional Siddha Medicine) for Contemporary Health Issues: An Update. *Journal of Ayurveda Medical Sciences*. 2019;4(1): 471-474.
32. **Amuthan A**, Devi V, Shreedhara CS, Rao V, Puri K, Jasphin S. *Vernonia Cinerea* (*Neichitti Keerai*) Regenerates Proximal Tubules In Cisplatin induced Renal Damage In Mice. *Asian Journal of Pharmaceutical Clinical Research*. 2019;12(1):332-5.
33. **Amuthan A**, Devi V, Shreedhara CS, Rao V, Lobo R. Cytoprotective Activity of *Neichitti* (*Vernonia cinerea*) in Human Embryonic Kidney (HEK293) Normal Cells and Human Cervix Epitheloid Carcinoma (HeLa) Cells against Cisplatin Induced Toxicity: A Comparative Study. *Journal of Clinical and Diagnostic Research*. 2019;13(2): KC01-KC06.
34. Shaik AB, Shenoy S, Anupama V, Rao KG, **Amuthan A**. Antidepressants modulate behavioral, biochemical, and histological alterations induced by chronic aluminum chloride administration in wistar rats. *Journal of Pharmacology and Pharmacotherapeutics*. 2019;10:16-21.
35. **Amuthan A**, Santhi M. Cost effective management of chronic psoriasis using safe Siddha herbal drugs – a case report. *Journal of Ayurvedic and Herbal Medicine*. 2020;6(1):9-11.
36. **Amuthan A**, Santhi M. A Case Report on removal of Filiform Warts using Siddha Kaalaani Kalimpu. *Journal of Ayurvedic and Herbal Medicine*. 2020;6(1):12-14.
37. Ramachandran J, **Amuthan A**. Neerizhivu kudineer (a traditional siddha polyherbal antidiabetic medicine) inhibits α - amylase enzyme and α -glucosidase enzyme. *Journal of Ayurvedic and Herbal Medicine*. 2020;6(1):21-25.
38. Shetty M, Shenoy S, Kumar N, Devi V, **Amuthan A**, Shenoy G, et all. Kadukkai maathirai (a polyherbal traditional siddha formulation) prevents D-galactosamine induced hepatic necrosis in rats. *Indian Journal of Traditional Knowledge*. 2020;19(4):708-713.
39. Shajahan S, **Amuthan A**. Comparative in-vitro anticancer activity of *thanga parpam* (siddha gold drug) in breast, liver, prostate and lung cancer cell lines. *Int J Research in Ayurveda and Pharmacy*. 2021;12(1):64-67.
40. **Amuthan A**, Devi V, Shreedhara CS, Rao V, Jasphin S, Kumar N. *Vernonia cinerea* regenerates tubular epithelial cells in cisplatin induced nephrotoxicity in cancer bearing mice

- without affecting antitumor activity. *Journal of Traditional and Complementary Medicine*. 2021(11):279-286. <https://doi.org/10.1016/j.jtcme.2020.08.004>.
41. Madhavan M, **Amuthan A**. Estimating the Impact of Yoga Practices on the Consciousness and Cognitive Development of People. *International Journal of Innovative Research in Technology*. 2021;7(9):64-70.
 42. Madhavan M, **Amuthan A**. Understanding the role of yoga in shaping the personality and Mental health. *GIS Science Journal*. 2021;8(3):1713-1722.
 43. Madhavan M, **Amuthan A**. Analyzing the Role of Yoga in Self-Personality Development. *International Journal of Innovative Research in Technology*. 2021;8(1):41-44.
 44. Madhavan M, **Amuthan A**. Investigating the results of Yoga with psychological intervention on student's personality. *Journal of Xi'an University of Architecture & Technology*. 2021;13(11):210-224.
 45. Shenoy G, Shenoy S, Pai SB, Kumar N, **Amuthan A**, Shetty M, Rao M, Rao BK. Long term toxicity study of a Siddha formulation Vetpalai thailam (VT) in Rats. *Research Journal of Pharmacy and Technology*. 2021; 14(12):6653-8. doi: 10.52711/0974-360X.2021.01149.
 46. Shiva S, Mari S, **Amuthan A**, Shanmugam. Repurposing Siddha mercurial drug for mild to moderate COVID-19 - Case series and exploration of its chemical profile. *Journal of Ayurveda and Integrative Medicine*. 2022;13(2):100469. <https://doi.org/10.1016/j.jaim.2021.06.009>.
 47. Chockalingam A, Kumar S, Ferrer MS, Gajagowni S, Isaac M, Karuparthi P, Aggarwal K, Shunmugam S, **Amuthan A**, Aggarwale A, Hans CP, Krishnaswamy K, Dorairajan S, Liu Z, Flaker G. Siddha fasting in obese acute decompensated heart failure may improve hospital outcomes through empowerment and natural ketosis. *Explore* 2022: <https://doi.org/10.1016/j.explore.2021.12.003>.
 48. Dyanand ND, **Amuthan A**, Pai S, Kabbekodu SP, Devi V. Indian Traditional Treatments for Psoriasis: A Critical Appraisal of Available Evidence Supporting Efficacy. *Chinese Journal of Integrative Medicine*. 2022. (Accepted, will be available online by June 2022).

COMPLETED PROJECTS – PUBLICATION IS UNDER PROCESS:

1. Kadukkai Maathirai (A Traditional Indian Polyherbal Formulation) Improves Haemoglobin, Mean Corpuscular Volume and Serum Ferritin: Open-Label, Single Arm Study in Anaemia of South India.
2. Chemical standardization, Invitro cytotoxic activity and anticancer activity in EAC mice of *Putru pathangam*, a herbometallic anticancer drug. (We have observed nano sized particles of arsenic and mercury in this formulation).
3. Invitro cytotoxic activity and in-vivo anticancer activity of three selected Traditional Siddha Medicine formulations (thaamira kattu chendhooram, chitramoola kuligai and neeradi muthu vallathi mezhugu).
4. Evaluation of diuretic activity of green tender coconut water and its combined effect while administering with tender coconut water in rats.
5. Evaluation of effect of a Siddha herbal drugs (serankottai nei) in surgically induced endometriosis rat model
6. Acquisition and Analysis of Naadi Signals: Three New Applications and Heart-rate Variability.
7. Natural dyes for histology staining – comparative study in normal and cancer tissues.
8. Preparation and physico-chemical analysis of red Rasamani (solidified mercury-copper alloy), a unique traditional Siddha metal drug

ONGOING STUDIES

1. Discovery of natural special stains for diagnosis of pathological lesions.
2. Clinical and patient-reported outcomes in patients receiving Siddha standard of care and allopathic standard of care for psoriasis: A prospective cohort study.

Writing/talking in media about Siddha promotion:

<https://tamilmedia.org/> - American Tamil Media

<https://www.youtube.com/TSMSiddha>

<http://www.pharmabiz.com/>

<http://www.valaitamil.com/>

<https://kaakkai.in/>