

RESUME



Name: Dr. Mariselvam Ramaiah

Designation: Scientist C

Department: Xavier Research Foundation

Address: St Xavier's College, Palayamkottai, Tamil Nadu, India – 627 002

PERSONAL DETAILS

Date of Birth : 02/06/1988

Qualification : M.Sc., Ph.D., PGDCA.,

Designation : Scientist C

Department : Xavier Research Foundation

Community : OBC

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ACADEMIC QUALIFICATIONS

Degree	Specialization	College	University	Year of Passing
Ph.D	Biotechnology	Sri Paramakalyani College	Manonmaniam Sundaranar university	2016
M.Sc	Biotechnology	Manonmaniam	Manonmaniam	2011

		Sundaranar university	Sundaranar university	
B.Sc	Advanced Zoology and Biotechnology	Sri Paramakalyani College	Manonmaniam Sundaranar university	2009
PGDCA	Post Graduate Diploma in Computer Application	Wisdom Computer Education	NCL IT Academy	2008

ACADEMIC IDENTITY

*VIDWAN ID	
*ORCID ID	0000-0003-4504-8086
*SCOPUS ID	58829948300
*RESEARCHER ID/ PUBLONS ID	G-3027-2015
GOOGLE SCHOLAR LINK	https://scholar.google.com/citations?user=j__RUm4AAAAJ&hl=en

TEACHING EXPERIENCE

Date of Appointment	
Date of Retirement	
Teaching Experience	UG : 1
	PG : 1
	M.Phil. :-
Research	Guided UG/PG/M Phil: 62 Guided Ph D: Guiding Ph Scholar:

COURSES/CLASSES TAUGHT	NAME OF THE INSTITUTIONS	DURATION		Years
		From	To	
Microbiology	Sri Ram Nallamani Yadava College of Arts and Science	2017	2018	1

AWARDS RECEIVED

1.	Best Young Innovator Award in the national symposium on Invention and Innovation for Sustainable Development (IISD–2014) – Organized by Karunya University.
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ADMINISTRATIVE EXPERIENCE			
S. No	DESIGNATION	INSTITUTIONS	YEAR
1	Director	Saraswathi Institute of Lifescience, Kadayam	2022– 2026

MEMBERSHIP		
S. No	Designation	Particulars
1.	Member	American Phyto pathological Society
2.	Life member	SPKC Alumni Association

ORIENTATION / REFRESHER COURSES / FACULTY DEVELOPMENT PROGRAMME UNDERGONE ()			
S. No	Name of the Training	Name of the Sponsoring Agency	Place and Date
1	One – day Intensive Workshop on Flash Chromatography for Innovations in Materials Research	International Research Centre, Kalasalingam University,	Krishnankoil on 23rd June 2016
2	STEM CELLS EVOLUTION, MECHANISMS AND THERAPHY EXPERIMENTAL / CILINICAL / IN SILICO ASPECTS CURRENT STATUS AND LESSIONS FOR THE FUTURE	School of Bio Sciences and Technology, VIT University	Vellore -2014
3	Bionanomaterials for Pest and Disease Management	Crop Protection Research Centre, Department of Zoology, St. Xavier’s College and DBT, New Delhi on	Palayamkottai, Tamil Nadu, India, 14-30 May, 2013.
4	Regeneration and Stem Cell Biology” Organized	Department of Biotechnology, Manonmaniam Sundaranar University,	Alwarkurichi, Tamil Nadu, India on 20-23 February 2013

DETAILS OF RESEARCH WORK

Research Stages	Title of the Thesis	University where the work was carried out
Ph.D	Biomedical evaluation of green synthesized silver nanoparticles	Manonmaniam Sundaranar University
M.Sc	Development of emergency queen and histological studies of normal worker and egg laying worker in <i>Apis cerana</i> honey bee colony	Manonmaniam Sundaranar University
B.Sc	DNA profiling using polymorphic autosomal dna loci, alu pv92 in a dravidian population & evaluation of Hardy Weinberg law.	Sri Paramakalyani College, Manonmaniam Sundaranar university

AREAS OF RESEARCH

Nanotechnology
Molecular Biology
Biochemistry
Microbiology
Histology

RESEARCH PROJECTS CARRIED OUT

S. No	Title of the Project (Minor)	Name of the Funding Agency & Amount	Duration

PUBLICATIONS

BOOKS	BOOK CHAPTERS	SCOPUS	WEB OF SCIENCE	UGC LISTED
3		10	26	7
OTHER INDEXED	AS A RESOURCE	PAPERS PRESENTED IN	WEBINARS, SEMINARS,	

	PERSON	NATIONAL AND INTERNATIONAL SEMINARS	WORKSHOPS ATTENDED	
6	3	6	7	

PUBLICATIONS: BOOKS (3)

S. No	Title of the Book	Publication	Year
1	FIELD GUIDE OF KANNUPULIMETTU FLORA Diversity, Identification and Conservation of Plant Species in Kannupulimettu Region	Dr.BGR Publication	2026
2	KNOWLEDGE OF FABRICATING ENERGY STORAGE DEVICES	Panainool	2026
3	THE NANO-GREEN REVOLUTION: TECHNOLOGIES FOR A SUSTAINABLE PLANET	Panainool	2026

PATENTS: 6

1. APPLICATIONS OF PRICKLY PEAR (OPUNTIA SPECIES) FRUIT NATURAL DYE FOR FABRICDYING, MICROBIAL - 201741005161 A.
2. Eco friendly golden yellow dye from *Syzygium cumini* (L) (Jambolan) fruit seed endosperm extract and its application in the preparation of antimicrobial fabric – 2560/CHE/2014 A.
3. Development of eco – friendly wound healing bandage from palmyra palm leaf secretions - 4011/CHE/2015.
4. “A compound Epicatechin with anticancer properties isolated from *Andrographis echinoides* (Linn.).”- 202141040669
5. Low-Cost FeCl₃-Coated Diagnostic Disc for Rapid Naked-Eye Jaundice Testing. Patent Application No. 202541123179
6. Natural Cosmetic Soap Composition with Black Gram and Rice Flour in a Cold Saponification Process - 202541122406

PUBLICATIONS: SCOPUS INDEXED JOURNALS (JWEB OF SCIENCE)

1. Lloyd AS, Mariselvi P, Vijayarani G, Parameshwari ST, Ramalakshmi C, Mariselvam R, Kajamydeen P, Krishnamoorthy R, Gatasheh MK. ECO-FRIENDLY SYNTHESIS AND CHARACTERIZATION OF IRON OXIDE NANOPARTICLES FOR TARGETED GASTRIC CANCER THERAPY. Bulletin of the Chemical Society of Ethiopia. 2025 Nov 22;39(9):1765. IF: 2.3
2. Ramalakshmi C, Suresh S, Murugan AM, Alyami NM, Aljawdah HM, Alharbi SA, Mariselvam R. Green synthesis of copper nanoparticles from *Terminalia arjuna* (L.) bark extract: Characterization and potential for mercury degradation. Bulletin of the Chemical Society of Ethiopia. 2024 Sep 16;38(6):1703-13. IF: 2.3
3. Ramaiah MARISELVAM Thayalan Uma RAJALAKSHMI, Chellaiah ESAIVANI, Thangaiya ANANTHAKUMAR, Sami Al OBAID, Hossam M. ALJAWDAH (2024). Achyranthes aspera-Mediated Silver Nanoparticle Synthesis for Enhanced Enrichment: Toxicological Studies on *Eudrilus eugeniae* Earthworms. materials science (medžiagotyra). 30(3), 285-292. IF: 1
4. C Ramalakshmi, S Suresh, AM Murugan, Nouf M Alyami, Hossam M Aljawdah, Sulaiman Ali Alharbi, R Mariselvam (2024). Green synthesis of copper nanoparticles from *Terminalia arjuna* (L.) bark extract: Characterization and potential for mercury degradation. Bulletin of the Chemical Society of Ethiopia, 38(6), 1703-1713. Impact factor: 1.3.

5. Sabaridasan Arumugam, Selvanayahi Sakthivadivel, Sharmila Syed Mohammad Ibrahim, Priyanga Murugan, Soranam Ramaiah, Mariselvam Ramaiah, Arunachalam Chinnathambi, Sulaiman Ali Alharbi (2024). Evaluation of the toxic metals, proximate composition and length–weight relationships of selected fish species from the Gadananathi River, Southern Tamil Nadu. *Environmental Monitoring and Assessment*, 196(5), 1-13. Impact factor: 2.9.
6. G Tamil Selvan, Israel MV Enoch, V Srinivasadesikan, R Mariselvam, A Ravi Kumar, Xuesong Li, P Jun Tang, P Mosae Selvakumar, Zhen Zhang (2024). Surface-modified gold nanoparticles: A novel chemical probe for precise fluorescent detection of aluminium (Al³⁺) ions; investigating DFT insights and molecular logic gate behaviour. *Journal of Molecular Liquids*, 397, 124039. Impact factor: 5.3
7. Sarumathi Sengottaiyan, Karthik Selvaraj, Abdhul Kaja, Saravanan Kandasamy, Poonkothai Muthusamy, Geetha Chandran, Kalirajan Arunachalam, Mariselvam Ramaiah, Hesham S. Almoallim and Hossam M. Aljawdah (2024). Biosynthesis of Titanium Dioxide Nanoparticles Using Psidium guajava (L.) and Its Applications. *Science of Advanced Materials*. 16(10), 1087–1100.
8. Renuga Devi Navaneethan, Packia Lekshmi NCJ, Mariselvam Ramaiah, Rajeswari Ravindran, Arunachalam Chinnathambi, Sulaiman Ali Alharbi, Ananthi Sivagnanam, Ponnani Kaja Mideen Mohamedibrahim (2024), Caralluma pauciflora based Ag-NPs activate ROS-induced apoptosis through down-regulation of AKT, mTOR and pI3K signaling in human gastric cancer (AGS) cells. *Nanotechnology*. 35(19) 195102. Impact factor: 2.9.
9. C. Ramalakshmi , S. Shibila , R. Mariselvam , G. Vijayarani, V. T. Parameshwari, R. Krishnamoorthy , M. K. Gatasheh (2024), Sustainable degradation of AZO dyes using green synthesized lead nanoparticles and solar energy. *Digest Journal of Nanomaterials and Biostructures* Vol. 19, No. 4, October-December 2024, p. 1361-1369. Impact factor : 1
10. T Uma Rajalakshmi, C Esaivani, T Anantha Kumar, R Mariselvam, G Tamil Selvan, Zhen Zhang, Nouf M Alyam, P Mariselvi, Green synthesis of iron oxide nanoparticles from *Spermacoce ocymoides* Burm. f. plant extracts for targeted lung cancer A549 cell therapy, *Bulletin of the Chemical Society of Ethiopia*, 38(1) 123-134. Impact factor: 1.3.
11. M Sivakavinesan, M Vanaja, M Anto-Rishiba, E Amutha, G Annadurai, R Mariselvam, Tahani Tahani Awad Alahmadi, Sulaiman Ali Alharbi, G Tamilselvan (2024) Synthesis and characterization of hybrid nanocatalyst (AgNPs-Fe₂O₃) for catalytic remediation of hazardous 2, 4-dinitrophenol, *Bulletin of the Chemical Society of Ethiopia*, 38(1) 113-121. Impact factor : 1.3
12. S Rajaduraipandian, E Amutha, G Sabeena, M Ponnani Kaja Mideen, A Mercy, S Gandhimathi, G Annadurai, R Mariselvam, Tahani Awad Alahmadi, Sulaiman Ali Alharbi (2023) Multifunctional Biocompatible *Rhinacanthus nasutus* Based TiO₂-Doped CeO Nanoparticles Synthesis and their Biomedical Evaluations; In-Vitro/In-Vivo Approach. *Journal of Biomedical Nanotechnology*, 19(10) 1772-1782 Impact factor : 4.1
13. Mariselvam Ramaiah, Tahani Awad Alahmadi, Sulaiman Ali Alharbi, Ponani Kaja Mideen, Sakthiganesh K, Ananthi Sivagnanam (2023) Isolation and Identification of bacteria from the agricultural soil samples to tolerate pesticides dimethoate, Thiamethoxam and Imidacloprid, *Environmental Research Communications* 5 075011.
14. T Uma Rajalakshmi, Helen Sheeba, A Doss, Ramyadevi Veerabahu, Ananthi Sivagnanam, Saleh Alfarrarj, Sulaiman Ali Alharbi, Jeeva Subbiah, R Mariselvam (2023) Synthesis of silver nanoparticles from natural derived embelin compound and their uses in mercury degradation under solar light. *Materials Research Express* 10 (5) 055502.
15. R Mariselvam, S Ignacimuthu, AJA Ranjitsingh, Rajapandiyan Krishnamoorthy, P Mosae Selvakumar (2023) Culture Method-Dependent Variation in the Sensitivity of *Escherichia coli* to Silver Nanoparticles. *Advances in Materials Science and Engineering* 2023.
16. TA Alahmadi, S Ali Alharbi, PK Mideen, Mariselvam Ramaiah (2023) Evidence on temperature and concentration of reducing agents to control the nanoparticles growth and their microbial inhibitory efficacy. *Materials Research Express*. 10 035002.
17. R Mariselvam, A Mariappan, M Sivakavinesan, IVMV Enoch, (2021) Production of silver

nanoparticles from <i>Atalantia monophylla</i> (L) plant resin and their enhanced antibacterial efficacy. <i>International Nano Letters</i> 11, 85-91.
18. C Varadaraju, MS Paulraj, GT Selvan, SS Vijeindran, R Mariselvam (2021) An insight into Asian Palmyra palm fruit pulp: A fluorescent sensor for Fe ²⁺ and Cd ²⁺ ions. <i>Materials Today: Proceedings</i> 47, 747-750.
19. R Mariselvam, S Ignacimuthu, AJA Ranjitsingh, SP Mosae (2021) An insight into leaf secretions of Asian palmyra palm: A wound healing material from nature. <i>Materials Today: Proceedings</i> 47, 733-738.
20. AJA.Ranjit singh C. Padmalatha, P. Dhasarathan, R. Mariselvam (2020). Water Treatment Technologies-Evaluation Of Efficacy To Filter Microbial Contamination. <i>INTERNATIONAL JOURNAL OF SCIENTIFIC AND TECHNOLOGY RESEARCH</i> 9 (3), 6937-6951.
21. G Athinarayanan, R Mariselvam, P Dhasarathan, AJA Ranjitsingh (2020) Epidemiology of urinary tract infection in South India. <i>World Journal of Biology Pharmacy and Health Sciences</i> 1 (1), 025-032.
22. R Mariselvam, AJA Ranjitsingh, C Thamaraiselvi, SIGNacimuthu (2019). Degradation of AZO dye using plants based silver nanoparticles through ultraviolet radiation. <i>Journal of King Saud University-Science</i> . https://doi.org/10.1016/j.jksus.2019.07.001
23. R. Mariselvam, G. Athinarayanan, A.J.A. Ranjitsingh, A. Usha Raja Nanthini, K. Rajapandiyan, A.A. Alshatwi (2018). Extraction of Dyes from <i>Petrocarpus santalinus</i> and Dyeing of Natural Fibres Using Different Mordants. <i>Fibre and Textile in Eastern Europe</i> . 5(131) / 20-23.
24. R.Mariselvam, A.J.A.Ranjitsingh, P.Mosae Selvakumar, Rajapandiyan Krishnamoorthy and Ali A Alshatwi, (2017). Eco friendly natural dyes from <i>Syzygium cumini</i> (L)(Jambolan)fruit seed endosperm and to preparation of antimicrobial fabric and their washing properties. <i>Fibers and Polymers</i> . 18(3): Pp: 460-464. Impact factor: 1.353.
25. R. Mariselvam, A. J. A. Ranjitsingh, P. Mosae Selvakumar, Abdullah A. Alarfaj, and Murugan A. Munusamy, (2016) Spectral Studies of UV and Solar Photo catalytic Degradation of AZO Dye and Textile Dye Effluents Using Green Synthesized Silver Nanoparticles, <i>Bioinorganic Chemistry and Applications</i> . (2016), Article ID 8629178, 8 pages. Impact factor: 2.081.
26. R.Mariselvam, A.J.A. Ranjitsingh, A.Usha Raja Nanthini, K.Kalirajan, C.Padmalatha and P.Mosae Selvakumar (2014). Green synthesis of silver nanoparticles from the extract of the inflorescence of <i>Cocos nucifera</i> (Family: Arecaceae) for enhanced antibacterial activity. <i>Spectrochimica Acta Part A: Molecular and Bio molecular Spectroscopy</i> . 129: Pp: 537-541. Impact factor: 2.880.
27. R.Mariselvam, A.J.A. Ranjitsingh, K.Kalirajan, A.Usha Raja Nanthini, G. Athinarayanan and P.Mosae Selvakumar (2015). Extraction of natural dyes from <i>Curcuma longa</i> , <i>Trigonella foenum graecum</i> and <i>Nerium oleander</i> , plants and their application in antimicrobial fabric. <i>Industrial Crops and Products</i> . 70: Pp: 84-90. Impact factor: 3.849.
28. R.Mariselvam, K.Kalirajan, A.U.R. Nanthini and A.J.A.R.Singh (2015). Green synthesis of silver nanoparticles from the aqueous extract of the seed endosperm of <i>Syzygium cumini</i> ; Characterization and antibacterial activity. <i>Arab J. Phys. Chem</i> . 2(3): Pp: 1-5.
29. R.Mariselvam, A.ArulJeyanthi, P.Arunthathi, P.Padma, M.Pitchammal Devi, R,Rajalakshmi, A.J.A. Ranjitsingh and A.Usha Raja Nanthini (2015). Spectral studies of banyan areal root tip mediated silver nanoparticles synthesis and preparation of eco-friendly silver nanoparticles tooth paste and their enhanced microbial activity. <i>Arab J. Phys. Chem</i> . 2(2): Pp: 43-47.
30. R.Mariselvam, A.Usha Raja Nanthini, G. Athinarayanan and A.J.A. Ranjitsingh (2013). Characterization and antibacterial effect of green synthesized silver nanoparticles by the aqueous extract of <i>Mimusopselengi</i> flower. <i>IJDR</i> . 3(10): Pp: 201-203.
31. R.Mariselvam, A.J.A. Ranjitsingh, and A.Usha Raja Nanthini (2013). Preparation and Characterization of silver nanoparticles using <i>Rubiocordifoliaplant</i> root extract and their microbial properties. <i>International Journal of Advanced Research</i> . 1(8): Pp: 56-61.
32. P.Monanmani, M.Ramer, N.Geetha, M.ValanArasu, R.RaskinErusan, R.Mariselvam and J.Jerlin Sowmiya (2015). Synthesis of silver nanoparticles using natural products from <i>Acalypha indica</i> (Kuppaimeni) and <i>Curcuma longa</i> (Turmeric) on antimicrobial activities. <i>IJPRBS</i> . 4(1): Pp: 151-

164.
33. B.SriReegan, A.Palanivel, R.Mariselvam, A.J.A.Ranjitsingh, P.Mosae Selvakumar and S.Edwin Jayaraj (2013). Comparative analytical study on various market palm jiggery samples and their use in green synthesis of silver nanoparticles. International Journal of Nanoscience and Nanotechnology. 4(1): Pp: 125-135.
34. R.Mariselvam, A.J.A. Ranjitsingh, C.Padmalatha and P.Mosae Selvakumar (2014). Green synthesis of copper quantum dots using Rubia cardifolia plant root extracts and its antibacterial properties. JAIR. 3(4): Pp: 191-194.
35. R.Mariselvam, A.J.A. Ranjitsingh and K.Kalirajan (2012). Anti-microbial activity of turmeric natural dye against different bacterial strains. Journal of Applied Pharmaceutical Science. 2(6): Pp: 210-212.
36. R.Mariselvam, A.J.A. Ranjitsingh and K.Kalirajan (2012). Antifungal activity of different natural dyes against traditional products affected fungal pathogens. Asian Pacific Journal of Tropical Biomedicine. 2(3): Pp: S1461-S1465.
37. R.Mariselvam, A.J.A. Ranjitsingh, A.Usha Raja Nanthini and K.Kalirajan, (2013). Anthelmintic and Antibacterial activity of Cocos nucifera tree inflorescences crude extract. IJSID. 3(2): Pp: 311-316.
38. R.Mariselvam, H.Sridhar, S.Umamaheswari and A.J.A.Ranjitsingh (2014). Worker reproduction and ovary difference in normal worker and egg laying worker honey bees in Apis cerana indica (F) (Indian bee) honey bee colony. International Journal of Advanced Scientific and Technical Research. 4(4): Pp: 780-786.
39. R.Mariselvam, E.Muthukumar, S.Suresh, A.J.A. Ranjitsingh and K.R.Narayanan (2013). DNA profiling using polymorphic autosomal DNA loci PV92 in a dravidian population and evaluation of Hardy Weinberg law. The Experiment. 14(1): Pp: 879-87.
40. G. Athinarayanan, R.Mariselvam, A.J.A. Ranjitsingh and A.Usha Raja Nanthini (2015). Phytotoxicity of selected different natural dyes study on Phaseolus aureus (Green gram). IJSR. 4(4): Pp: 2067-67.
41. C.Ramakshmi, A.J.A. Ranjitsingh, K.Kalirajan, A.Kalirajan, G. Athinarayanan and R.Mariselvam (2013). A preliminary screening of the medicinal plant Couroupita guianensis for its antibacterial potential against clinical and fish-borne pathogens. Elixir Appl. Bio. 57: Pp: 14055-57.

**EXTRA-CURRICULAR ACTIVITIES/ CO-CURRICULAR ACTIVITIES
ATTENDED(NCC/NSS/YRC/SPORTS/LITERARY AND CULTURAL ACTIVITIES)**

Date: 21/09/2026

Name: Dr. R. Mariselvam