

## *Short Curriculum Vitae*

---



### *Parimelazhagan Thangaraj, Ph.D.*

Professor

Department of Botany

School of Life Sciences

Bharathiar University, Coimbatore – 641 046

Mobile: +91 89030 01973

E-mail: drparimel@buc.edu.in

---

**Dr. Parimelazhagan Thangaraj**, completed his graduation from St. Joseph's College (Autonomous), Trichy and Ph.D from Bharathiar University, Coimbatore, Tamil Nadu, India. His areas of specialization include Bioprospecting of medicinal plants. He is currently engaged in compilation and documentation on available knowledge on valuable plant resources to prove their utility scientifically through detailed phytochemical, biological and pharmacological investigations, isolation and characterization of bioactive compounds from potential medicinal plants, their interaction with proteins and mechanism of actions.

Dr. Parimelazhagan has worked as Scientist in Defence Research & Development Organization, Ministry of Defence, Govt. of India. He has also worked as Scientist in Rubber Research Institute of India, Ministry of Commerce, Govt. of India, Tura, Meghalaya. He has 17 years of research and 9 years of teaching experience. Added to the credits, he had authored quite a few books and book chapters in his field of specialization. He has filed four patents and has more than 75 research publications in international and national peer reviewed journals with an H-index of 13. He serves as an editorial board member of Progressive Horticulture Journal. He is also the reviewer of many peer reviewed journals. He has been awarded with Raman Fellowships for Post-Doctoral Research for Indian Scholars in USA by University Grand Commission, Govt. of India.

Dr. Parimelazhagan is also a life member of professional bodies like Indian Society for Plant Physiology, Society for Biological Chemists, India and Indian Pharmacological Society. He has bagged National Science Day Medal 2005 and Laboratory Scientist of the Year award 2005 from DRDO, New Delhi. Currently, he is engaged in the investigation to find out some novel herbal drugs and nutraceutical product to treat some of the most common human diseases like diabetes and cancer.

---

## Research Projects

### Completed Research Projects

- Phytochemical and Pharmacological Investigations of *Rhodiola* sp., DRDO-DIHAR, Rs. 9.97 Lakhs, 2009-2012.
- Evaluation of *Passiflora* Species of Southern India for Nutritional and Antioxidant properties. UGC-MRP, Rs. 13.42 Lakhs, 2009-2012.
- Nutritional and phytochemical investigations of Buckwheat , DRDO-DIBER, Rs.9.92 Lakhs, 2011-2013.
- Qualitative Extraction from *Tulsi* leaves from Coimbatore region using Organic solvents for quantification of bioactive Compounds, DRDO-INMAS, Rs.4.86 Lakhs, 2012-2013.
- Combinatorial chemo-preventive potential of *Ficus* species and natural non-nutritive compounds against Breast cancer – a novel approach, DST-SERB, Rs.12.00 Lakhs, 2014-2016.

### Active Research Projects

- Development of nutraceuticals from under-utilized seed embryo of palmyrah (*Borassus flabellifer* L.), DRDO-BU-CLS, Rs.25.30 Lakhs, 2014-2017.
- Cell death induced by combination of photodynamic therapy with phytochemicals isolated from *Vaccinium nilgiriensis* on breast cancer therapy-an in vitro approach. DST- Indo – South Africa Joint project, Rs.33.65 Lakhs, 2016-2019.

---

## Supervision and mentoring experiences

**Ph.D.:** Awarded: 08

**M.Phil.:** Awarded: 10

**Supervision in progress:** Ph.D.: 07

---

## Patents filed

- A herbal appetizer formulation from wild herbs of trans Himalaya (285/DEL/2007)
- An improved boiling device and a process for manufacture thereof (2322/DEL/2007)

- Dietary supplement and method of manufacturing the dietary supplement (1119/CHE/2010)
  - Method and Composition for Treatment of Wounds (2088/CHE/2011)
  - Isolation of compounds with Anti-diabetic potentials from *Syzygium mundagam* (No. 4779/CHE/2015)
  - A method to isolate Isokaempferide from *Acalypha alnifolia* (No. 4777/CHE/2015)
- 

## Foreign assignment

- Visited Bangladesh to present a research paper at 10<sup>th</sup> Bangladesh Botanical Conference held during November 12 - 14, 1999 at University of Dhaka, Bangladesh.
  - Visited Sweden (Uppsala) to present research paper at International conference on Natural Drugs origin during 5<sup>th</sup> – 8<sup>th</sup> Sep 2007.
  - Visited Malaysia to present research paper at International symposium on Underutilized plant species: Crops for the future- Beyond Food Security during 27<sup>th</sup> June to 1<sup>st</sup> July 2011, organized by University of Nottingham.
  - Visited USA under Raman Post-Doctoral fellow in Dept. of Pharmaceutical Sciences, College of Pharmacy University of Hawaii, Hilo, 2014-2015.
  - Visited Philadelphia, USA to deliver a talk at World Nutraceutical Conference and Expo during July 13 – 15, 2015.
  - Visited Department of Biology, Rutgers University - Camden, New Jersey, USA and Interacted with Dr. Simeon Kotchoni for possible collaboration during July 2015.
  - Visited Singapore to present research paper at 18th International Conference on Pharmacology, Medicinal and Pharmaceutical Sciences: during July 4 - 5 2016, organized by World Academy of Science, Engineering and Technology.
  - Visited University of Johannesburg, South Africa in connection with INDO-South Africa Bilateral project during February 22 to March 11, 2017.
-

## **Administrative/ Academic responsibilities**

### ***Position held on University***

- Director, IPR Cell
- Special Officer, Planning & Development
- Member in Academic Council of Affiliated Colleges
- Served as Member in Annual Report preparation committee
- Member in faculty selection committee of Affiliated Colleges
- Member of the inspection commission for granting of recognition to research programme.
- Member in Board of Studies of Affiliated Colleges
- Served as University Representative to oversee the conduct of SDE examinations
- Served as member of the squad to oversee the conduct of University COP examinations
- Served as Doctoral committee member of Affiliated Colleges
- IQAC Member
- Served as Member for NIRF team

### ***Position held on Department***

- Coordinator for CBCS during 2009 - 2013
- Coordinator for IQAC during 2009 - 2014
- Faculty Coordinator for Students welfare during 2009 – 2014
- IQAC & NAAC Coordinator

### ***Position held – off campus***

- Member for faculty selection in Dept. of Plant Science, Central University of Kerala
- Served as Doctoral committee member – CAS in Marine Biology, Annamalai University, Dept. of Biotechnology, Periyar University and Dept. of Biotechnology, Karunya University.
- Member for Board of studies in Botany, Dept. of Botany, Periyar University.

- Member for Board of studies in Botany, Dept. of Botany, Annamalai University
  - Member for Board of studies in Botany, Dept. of Botany, Mother Theresa University
  - Member for Board of studies in Botany, Dept. of Botany, Kongunadu Arts Science College.
  - Member for Academic Council, Kovai Kalaimagal College of Arts and Science.
  - Served as external examiner for evaluating Ph.D. thesis and conducting viva-voce examination at various Universities/Colleges.
- 

## Books Published

- S. K. Dwivedi, T.Parimelazhagan *et al.*, 2009. Seabuckthorn *Hippophae* spp.: The Golden Bush. (Ed.) Published by Satish Serial Publishing House, New Delhi. ISBN 8189304607.
  - T.Parimelazhagan, S.Manian and M.Pugalenthi. 2011. Herbal perspectives: Present and Future. (Ed.) Satish Serial Publishing House, New Delhi. ISBN 8189304917.
  - T.Parimelazhagan. 2012. Herbal drug research: Recent Trends and Progress: A research close to nature. (Ed.) LAP LAMBERT Academic Publishing, Germany. ISBN 978-3846558010.
  - T.Parimelazhagan. 2013. Traditional Herbal Medicine, (Ed.) Pointer Publishers, Jaipur, India. ISBN: 9788171327430.
  - T.Parimelazhagan. 2013. Turning Plants into Medicines – Novel Approach, (Ed.) New India Publishing Agency, New Delhi, India. ISBN: 9789381450468.
  - T.Parimelazhagan. 2013. Scientific Basis of Herbal Medicine. (Ed.) Astral International (P) Ltd, New Delhi. India. ISBN: 9788170358732.
  - T. Parimelazhagan, 2015. Modern Methods in Phytomedicine. (Ed.) Astral International (P) Ltd, New Delhi. India. ISBN: 978-93-5124-663-3
  - T. Parimelazhagan, 2016. Pharmacological Assays of Plant - Based Natural Products. **Springer International Publishing**, Switzerland. ISBN: 978-3-319-26810-1
-

## Conference/Workshop organized

- National Symposium on Herbal Drug Research during 25<sup>th</sup> and 26<sup>th</sup> September 2008 at Bharathiar University, Coimbatore. Sponsored by DRDO & CSIR.
  - Workshop on Intellectual Property Rights (Natural products) on 9<sup>th</sup> February 2009 at Bharathiar University, Coimbatore.
  - National Workshop on Scientific validation of traditional Herbal medicine at Bharathiar University sponsored by ICMR during 16-17 December 2009.
  - National Conference on Herbal Medicine on September 8<sup>th</sup> and 9<sup>th</sup>, 2010 at Bharathiar University, Coimbatore. Sponsored by DBT, DRDO, DST, MoEF & CSIR
  - Workshop on Recent Trends in Plant Science on February 8<sup>th</sup> and 9<sup>th</sup>, 2011 at Department of Botany, Bharathiar University, Coimbatore.
  - National Workshop on Intellectual Property Rights – Opportunities, Issues and Challenges during August 11 & 12, 2011 at Bharathiar University, Coimbatore. Sponsored by DRDO
  - Workshop on Man and Medicinal Plants 23<sup>rd</sup> & 24<sup>th</sup> February, 2012 at Bharathiar University, Coimbatore Sponsored by ICMR
  - National Conference on Phytomedicine 4<sup>th</sup> & 5<sup>th</sup> October, 2012 at Bharathiar University, Coimbatore sponsored by DBT, DRDO, TNSCST, DST & MoES
  - National Workshop on Intellectual Property Rights during 1<sup>st</sup> and 2<sup>nd</sup> August 2013 at, Bharathiar University, Coimbatore. Sponsored by DRDO
  - National Workshop on Intellectual Property Rights during March 3<sup>rd</sup> & 4<sup>th</sup>, 2016 at Bharathiar University, Coimbatore. Sponsored by ICMR and NBA.
  - National Workshop on Intellectual Property Rights in Biomedical Innovations jointly Organized by Department of Nano Science and Technology & Intellectual Property Rights Cell, Bharathiar University during 20<sup>th</sup> October 2016.
- 

## Life member in scientific societies

- Indian Society for Plant Physiology
- Society for Biological Chemists, India

- Indian Pharmacological Society
  - National Academy of Biological Sciences
- 

### Editorial position

- Progressive Horticulture
  - Journal of Economic Botany and Taxonomy
- 

### Training courses organized

- Served as a Coordinator to conduct Refresher course in Botany for College/Univ. teachers during 2008.
  - Served as Course Director and conducted a DBT Short Term Training Course on Bioprospecting of Medicinal Plants: A Biotechnological Approach 1<sup>st</sup> March to 16<sup>th</sup> March, 2012 at Bharathiar University, Coimbatore
  - Served as a Coordinator to conduct Refresher course in Life Sciences for College/Univ. teachers during 5<sup>th</sup> July to 25<sup>th</sup> July 2017.
  - Conducted Workshop on Intellectual Property Rights during 26 & 27 July 2017.
- 

### Research papers published during 2014 - 2017

- Rajan Murugan and **Thangaraj Parimelazhagan**. 2014. Comparative evaluation of different extraction methods for antioxidant and anti-inflammatory properties from *Osbeckia parvifolia* Arn. – An *in vitro* approach. *Journal of King Saud University-Science*. 26, 267-275.
- Blassan P. George, **Thangaraj Parimelazhagan**, Rahul Chandran 2014. Anti-inflammatory and wound healing properties of *Rubus fairholmianus* Gard. Root- An *in vivo* study. *Industrial Crops and Products* 54, 216-225. **Impact factor: 3.181.**
- Thangaraj Sajeesh and **Thangaraj Parimelazhagan** 2014. Analgesic, Anti-inflammatory and GC-MS studies on *Castanospermum australe* A. Cunn. & C. Fraser ex Hook. *The Scientific World Journal*. 2014. **Impact factor: 1.200.**
- Blassan P. George, **Thangaraj Parimelazhagan**, Rahul Chandran and Shanmugam Saravanan. 2014. A Comparative study on *in vitro* and *in vivo* antioxidant properties of *Rubus ellipticus* and *Rubus niveus*. *Pharmacologia*, 5(7), 247-255.
- Karuppusamy Arunachalam, Rajan Murugan, and **Thangaraj Parimelazhagan**. 2014. Evaluation of antioxidant activity, nutritional and chemical composition of *Ficus amplissima* Smith fruit. *International Journal of Food Properties*. 17: 454-468.

- Revathi Ponnusamy, **Thangaraj Parimelazhagan**. 2014. Total nutritional capacity and inflammation inhibition effect of *Acalypha alnifolia* Klein ex wild—An unexplored wild leafy vegetable. *Journal of Food and Drug Analysis*. 22(4), 439-447. **Impact factor: 3.048.**
- Sivasankari Velappan and **Thangaraj Parimelazhagan**. 2014. Phytochemical constituents and antiarthritic activity of *Ehretia laevis* roxb. *Journal of Food Biochemistry*. 38(4), 433-443 **Impact factor: 1.000.**
- Ravichandran Senthilkumar, Rahul Chandran and **Thangaraj Parimelazhagan**. 2014. Hepatoprotective effect of *Rhodiola imbricata* rhizome against paracetamol-induced liver toxicity in rats. *Saudi Journal of Biological sciences*. 21(9), 409-416. **Impact factor: 2.564.**
- Blassan Plackal George, **Thangaraj Parimelazhagan**, Cheruthazhakkatt Sulaiman, Shanmughavel Piramanayagam, Sathish Kumar Ramaswamy. 2014. Bioassay directed isolation and biological evaluation of compounds isolated from *Rubus fairholmianus* Gard. *Biomed Research international*. 2014 **Impact factor: 1.579**
- Shanmugam Saravanan, **Thangaraj Parimelazhagan**. 2014. *In vitro* antioxidant, antimicrobial and anti-diabetic properties of polyphenols of *Passiflora ligularis* Juss. fruit pulp. *Food Science and Human Wellness*. 3(2), 56-64.
- Karuppusamy Arunachalam, **Thangaraj Parimelazhagan**. 2014. Antidiabetic and enzymatic antioxidant properties from methanol extract of *Ficus talboti* bark on diabetic rats induced by streptozotocin. *Asian Pacific Journal of Reproduction*, 3(2), 97-105.
- Rahul Chandran, Thankarajan Sajeesh, **Thangaraj Parimelazhagan**. 2014. Total Phenolic Content, Anti-Radical property and HPLC profiles of *Caralluma diffusa* (Wight) NE Br. *Journal of Biologically Active Products from Nature*. 4(3),188-195.
- Shanmugam Saravanan, Karuppusamy Arunachalam, **Thangaraj Parimelazhagan**. 2014. Antioxidant, analgesic, anti-inflammatory and antipyretic effects of polyphenols from *Passiflora subpeltata* leaves—A promising species of *Passiflora*. *Industrial Crops and Products*. 54, 272-280. **Impact factor: 3.181.**
- V Nivedhini, R Chandran, **Thangaraj Parimelazhagan**. 2014. Chemical composition and antioxidant activity of *Cucumis dipsaceus* Ehrenb. Ex Spach fruit. *International Food Research Journal*. 21(4), 1465-1472
- S Karthikkumar, T Sajeesh, **Thangaraj Parimelazhagan**, V Vinodhkumar, D Kamalanathan, T Natarajan. 2014. Evaluation of antioxidant and antimicrobial activities of *Tarenna asiatica* (L.) O. Ktze. Ex K. Schum. *Asian Journal of Pharmaceutical & Clinical Research*. 7, 102-110.
- Karuppusamy Arunachalam and **Thangaraj Parimelazhagan**. 2014. Evaluation of Phenolic Content, Antioxidant Activity, and Nutritional Composition of *Cordia evolutior* (Clarke) Gamble. *International Journal of Food Properties*. 17(1), 266-238.



- Karuppusamy Arunachalam and **Thangaraj Parimelazhagan**. 2014. Anti-inflammatory, Wound Healing and *in vivo* Antioxidant Properties of the Bark of *Ficus amplissima* Smith. *Pharmacologia*. 2014, 98-106
- Blassan P. George, **Thangaraj Parimelazhagan**, Rahul Chandran and Shanmugam Saravanan, 2014. A Comparative Study on *in vitro* and *in vivo* Antioxidant Properties of *Rubus ellipticus* and *Rubus niveus*. *The Scientific World Journal*. 247-255. **Impact factor: 1.200.**
- Ponnusamy Revathi and **Thangaraj Parimelazhagan**. 2015. Anti-diabetic analysis and insulin expression study of a wild leafy vegetable *Acalypha alnifolia* Klein ex wild. On streptozotocin-induced diabetic rats. *Bangladesh Journal Pharmacology*, 10: 461-466 **Impact factor: 1.000.**
- Poornima Nagulsamy, Ponnusamy Revathi and Thangaraj Parimelazhagan. 2015. Evaluation of antioxidant, anti-inflammatory, and antiulcer properties of *Vaccinium leschenaultii* Wight: A therapeutic supplement. *Journal of Food and Drug Analysis*, 3, 376-386. **Impact factor: 3.048.**
- Blassan Plackal George, **Thangaraj Parimelazhagan**, Yamini T. Kumar, Thankarajan Sajeesh, 2015. Antitumor and wound healing properties of *Rubus ellipticus* Smith. *Journal of Acupuncture and Meridian Studies*, 8 (3), 134–141.
- K. Arunachalam, B. Shanmuganathan, P. S. Sreeja, and **T. Parimelazhagan**. 2015. Phytosynthesis of silver nanoparticles using the leaves extract of *Ficus talboti* king and evaluation of antioxidant and antibacterial activities. *Environ Sci Pollut Res*. 22(2) 18066-18075 **Impact factor: 2.741.**
- Rahul Chandran, Saikumar Sathyanarayanan, Murugan Rajan, Muniyandi Kasipandi and **Thangaraj Parimelazhagan**. 2015. Anti-oxidant, hypoglycemic and anti-hyperglycemic properties of *Syzygium calophyllifolium*. *Bangladesh Journal Pharmacology*. 10: 672-680. **Impact factor: 1.000.**
- R. Murugan, J. Prabu, Rahul Chandran, T. Sajeesh, M. Iniyavan and **T. Parimelazhagan** 2016. Nutritional composition, *in vitro* antioxidants and anti-diabetic potential of *Breynia retusa* (Dennst.) Alston. *Food Science and Human Wellness* 5(1) 30-38.
- G. Elizabeth, M. Kasipandi, M. Venkataramana, K. Naveen Kumar, J.A. Allen, **T. Parimelazhagan** and N Gopalan 2016. *In vitro* anti-oxidant and cytotoxic analysis of *Pogostemon mollis* Benth. *Bangladesh Journal of Pharmacology*. 11: 148-158. **Impact factor: 1.000**
- S. Saravanan, M. Iniyavan, Bruno dos dantos Lima, Mairim Russi Serafini, Adriano Antunes de Souza Araujo, Narendra Narain, Lucindo Jose, Quintans – Junior, **T. Parimelazhagan** 2016. HPLC – DAD – MS identification of polyphenols from *Passiflora leschenaultii* and determination of their antioxidants, analgesic, anti-inflammatory and antipyretic properties. *Arabian journal of chemistry*. **Impact factor:4.553**

- Chandran, Rahul, **Thangaraj Primelazhagan**, Saravanan Shanmugam, and Sajeesh Thankarajan. 2016. "Antidiabetic activity of *Syzygium calophyllifolium* in Streptozotocin-Nicotinamide induced Type-2 diabetic rats." *Biomedicine & Pharmacotherapy* 82: 547-554. **Impact Factor: 2.741.**
  - George, Blassan P., Heidi Abrahamse, and **Thangaraj Parimelazhagan**. 2016. "Caspase dependent apoptotic activity of *Rubus fairholmianus* Gard. on MCF-7 human breast cancer cell lines." *Journal of Applied Biomedicine* . 14 (3). 211-219. **Impact Factor: 1.50.**
  - Baskaran, X., Vigila, A. V. G., **Parimelazhagan, T.**, Muralidhara-Rao, D., & Zhang, S. 2016. Biosynthesis, characterization, and evaluation of bioactivities of leaf extract-mediated biocompatible silver nanoparticles from an early tracheophyte, *Pteris tripartita* sw. *International Journal of Nanomedicine*, 11, 5789 - 5806. **Impact Factor: 4.300.**
  - Murugan, R., Chandran, R., **Parimelazhagan, T.**, 2016. Effect of *in vitro* simulated gastrointestinal digestion of *Phoenix loureirii* on polyphenolics, antioxidant and acetylcholinesterase inhibitory activities. *LWT-Food science and Technology*, 74, 363-370. **Impact Factor: 2.329.**
  - Saravanan S, Dhivya S, Bruno S , Paula P M, Yasmim MBa Gomes C, Adriano A, Narendra N, **Parimelazhagan T.** 2017 "Polyphenols rich *Passiflora leschenaultii* leaves modulating Farnesoid X Receptor and Pregnane X Receptor against paracetamol-induced hepatotoxicity in rats." *Biomedicine & Pharmacotherapy* 88: 1114-1121. **Impact Factor: 2.741.**
  - Murugan, R., Saravanan S., **Parimelazhagan T.** 2017 Study of intestinal anti-inflammatory activity of *Phoenix loureiroi* Kunth (Arecaceae) fruit, *Biomedicine & Pharmacotherapy*, 93, 156-164. **Impact Factor: 2.741..**
  - Kasipandi., MELizabeth, . G., Venkataramana M., Naveen Kumar K., Allen, J.A. **Parimelazhagan, T., Kadirvelu K.,** and N Gopalan 2017 Antioxidant and anticancer activities of *Plectranthus stocksii* Hook. f. leaf and stem extracts, *Agriculture and Natural Resources* ,(Accepted)
  - Rahul Chandran, **Thangaraj Parimelazhagan**, Blassan P. George, 2017. Antihyperglycemic activity of the bark methanolic extract of *Syzygium mundagam* in diabetic rats, *Alexandria Journal of Medicine*, (In Press) DOI: <https://doi.org/10.1016/j.ajme.2016.12.001>
-