



Dr (Mrs) Selvaluxmy Chelvendran
(nee Kathirgamanathar)

Principal Research Scientist

Herbal Technology Section

Qualifications

- **B.Sc.** Honors - Chemistry (University of Jaffna, 1998).
- **Ph.D.** – Natural Products Chemistry & Chemical Ecology (University of Peradeniya, 2004).
- Postdoctoral training (HEJ, Research Institute of Chemistry, ICCBS, University of Karachi, Pakistan, 2011).

Contacts

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Specialized Fields

- Natural Products Chemistry (medicinal and aromatic plants, essential oils and lichens)
- Chemical Ecology, synthesis, bio assays (immunomodulatory and anti-cancer *in vitro* assays)
- Mycotoxins and Quality control and standardization of herbal drugs
- Analytical techniques of herbal products, aflatoxin, essential oils and essential oil based products.

Interest Areas

- Investigation of bioactive compounds and their activity from medicinal and aromatic plants
- Herbal formulations for the healthcare of human
- Analysis of essential oil and essential oil based products and their bio activities
- Develop quality control and standardization techniques for the herbal drugs to implement the rules and regulations for the registration
- Detection of adulteration in food items
- Preparation of National relevant documents for regulatory purpose

Publications & Communications

Publications

1. Madhuvanthy Chandrakanthan, Shiroma M. Handunnetti, Galbada Sirimal Arachchige Premakumara, and Selvaluxmy Kathirgamanathar. (2020). Topical Anti-Inflammatory Activity of Essential Oils of *Alpinia calcarata* Rosc., Its Main Constituents, and Possible Mechanism of Action, Evidence-Based Complementary and Alternative Medicine Volume 2020, Article ID 2035671, 19 pages.
2. Kathirgamanathar, S., Abeysekera W.P.K.M., Weerasinghe, D.M.K.P., Ranasinghe, P., Binduhewa, A.M.C.U. (2018). Antioxidant, Anti-amylase and Lipid lowering potential of leaves of *Aporosa lindleyana* Baill. (Kebella), *Sri Lankan J. Biol.* 2018, 3 (1): 1-10.
3. Thayalini Thileepan, Vasanthi Thevanesam, Selvaluxmy Kathirgamanathar. (2018). Anticandidal activity of essential oils of *Myristica fragrans* and *Syzygium*

aromaticum, Journal of Innovations in Pharmaceutical and Biological Sciences (JIPBS), 35-38.

4. Thayalini Thileepan, Vasanthi Thevanesam, and Selvaluxmy Kathirgamanathar. (2017). Antimicrobial Activity of Seeds and Leaves of *Myristica fragrans* against Multi-resistant Microorganisms, Journal of Agricultural Science and Technology A 7, p. 302-308.
Sulosana. P, Madushani. Y.M.P.K, Selvaluxmy. K, Medawatta. H.M.U.I, Thayalini. T. (2017). Standardization of Jala Peenisa choornam used for Peenisa Rogam, Asian Journal of Medicine and Health, 5(3): p.1-5.
5. Kathirgamanathar, Ahsana Dar, Mudassar Azhar, Syeda Roohina Ali, M. Iqbal Choudhary and Muhammad Kashif. (2017). Evaluation of cytotoxicity of leaf and rhizome extracts of *Alpinia calcarata* Rosc. Human lung NCI-H460 and cervical HeLa cancer cell lines, Sri Lankan Journal of Biology, 2 (2), p.36-45.
6. Premakumara GAS, Kathirgamanathar S, Thayalini T, Bandara VS, Thevanesam V, Arawwawala LDAM, (2016). Antibacterial activity and chemical analysis of fruit oil of *Trachyspermum ammi* Linn. Sprague, Journal of Ayurvedic and Herbal Medicine 2(4), 117-119.

Communications

1. Kathirgamanathar, S., Medawatta, H.M.U.I., Herath, H.M.T., Ransilu, P.Y., Arawwawala, L.D.A.M. and Priyangani, A.W.D. (2019). Antioxidant rich instant herbal porridge from leafy vegetables, Proceedings of 4th Biennial symposium of Industrial Technology Institute, 13.
2. **Kathirgamanathar**, H.M.U.I. Medawatta, A.W.D. Priyangani, L.D.A.M. Arawwawala, H.M.T. Herath, G.D.D.R. Jayasinghe. (2018), Antioxidant properties and nutritional value of leafy vegetables used in herbal porridge, Asian Symposium on Medicinal Plants, spices and other Natural Products XVI, 220.
3. T. Thileepan, V. Thevanesam, S. Kathirgamanathar., Antibacterial activity of Parankipaddai kudineer (decoction) and its component plants. (2017). Proceedings of International Symposium on Traditional medicine and Complementary medicine, , 103.
4. S. Kathirgamanathar, W.P.K.M. Abeysekera, A.M.C.U. Binduhewa, P. Ranasinghe and M.D.P.M. Peiris. (2017). Development of an antioxidant rich ready to serve drink from *Aporosa lindleyana* Baill. (Kebella), ITI 3rd Biennial symposium.
5. S. Kathirgamanathar, W.P.K.M Abeysekera, D.M.K.P. Weerasinghe, P. Ranasinghe, A.M.C.U. Binduhewa and M.D.P.M. Peiris. (2017). *Aporosa lindleyana* Baill. (Kebella) tea: An alternative to Green tea, 73rd Proceedings of Sri Lanka Association for the Advancement of Science, 72.
6. Madushani. Y.M.P.K, Sulosana. P, Selvaluxmy. K, Medawatta. H.M.U.I, Thayalini. T. 2017. Standardization of JalaPeenisa choornam used for Peenisa Rogam, Proceedings of National Research Conference and Exhibition on Indigenous medicine (NRCEIM), 65.
7. S.Kathirgamanathar, D.M.K.P.Weerasinghe, W.P.K.M Abeysekera, P. Ranasinghe and A.M.C.U. Binduhewa. (2016). Anti-lipase and anti-cholesterol esterase activities and binding of bile acids by leaf extracts of *Aporosa lindleyana* Baill. (Kebella), IOB 36th Annual sessions, 24.
8. S.Kathirgamanathar, W.P.K.M Abeysekera, D.M.K.P.Weerasinghe, P. Ranasinghe and A.M.C.U. Binduhewa. (2016). Anti-amylase potential and phytochemical analysis of leaf extracts of *Aporosa lindleyana* Baill. (Kebella), 4th International Conference on Ayurveda, Unani, Siddha & Traditional Medicine, 135.
9. Thayalini T, Thevanesam.V, Kathirgamanathar.S, Liyanapathirana.V., Gamage.T., 2015. Antibacterial activity of decoction and methanolic extracts of the fruit of *Piper*

longum fruit against selected pathogens. Fourth annual conference and scientific sessions of The Sri Lanka Society for Microbiology (SSM), Vol.3, 9.

10. Chandhrakanthan M, Kathirgamanathar S, Handunnetti SM, Premakumara GAS. (2015). Extracts of *Alpinia calcarata* (Lesser galangal) inhibits production of inflammatory mediator - Nitric oxide in RAW 264.7 Murine macrophage, Proceedings of the Young Scientist Forum Symposium, 37-40.
11. Chandhrakanthan M, Kathirgamanathar S, Handunnetti SM, Premakumara GAS. (2015). Evaluation of anti-inflammatory activity of *Alpinia calcarata* leaf extracts: An *in vitro* study, IBMBB, Seventh Annual Scientific Sessions, 16.
12. M Chandhrakanthan, S Kathirgamanathar, SM Handunnetti, GAS Premakumara. (2015). *Alpinia calcarata* Rosc. rhizome extracts: A prospective inhibitor of inflammatory mediators, 8th International Research Conference, General Sir John Kotelawala Defence University, Sri Lanka, 162.
13. M Chandhrakanthan, S Kathirgamanathar, SM Handunnetti, GAS Premakumara. (2015). Essential oils of *Alpinia calcarata* Rosc. inhibits the *in vitro* generation of Reactive Oxygen Species in mouse macrophages, 2nd International Conference on Multidisciplinary Approaches, Faculty of Graduate Studies, University of Sri Jayewardenepura.
14. M Chandhrakanthan, S Kathirgamanathar, SM Handunnetti, GAS Premakumara. (2015). Anti-inflammatory volatile constituents from rhizomes and leaves of *Alpinia calcarata*, ITI 2nd Biennial symposium.
15. S.Kathirgamanathar, K.P.D.M.K.Pathirana. (2015). Chemical composition of essential oils of different parts of *Myristica fragrans* (nutmeg) and *Syzygium aromaticum* (clove) grown in Sri Lanka, ITI Biennial symposium.
16. S.Kathirgamanathar, D.M.K.P.Weerasinghe, W.P.K.M Abeysekera, P. Ranasinghe and A.M.C.U. Binduhewa. (2015). Antioxidant properties of leaves of *Aporosa lindleyana* Baill. (Kebella), Proceedings of the 35th Annual sessions, The Institute of Biology, Sri Lanka, 62.
17. Thayalini T, Thevanesam.V, Kathirgamanathar.S, Liyanapathirana.V., Gamage.T., 2015. Antibacterial activity of decoction and methanolic extracts of the fruit of *Piper longum* fruit against selected pathogens. Fourth annual conference and scientific sessions of The Sri Lanka Society for Microbiology (SSM), Vol.3, 9.

Newspaper article

1. M. Chandhrakanthan., S. Kathirgamanathar., Shiroma M Handunnetti and G.A.S. Premakumara. (2018). Exploring the Secret Molecules of Heen Araththa (Our Traditional Pain Reliever), Vidya, The Official News paper for Ministry of Science, Technology and Research.

Major Projects Undertaken

- Activity guided separation of anti-inflammatory compounds from *Alpinia calcarata* rhizome and leaf.
- Phytochemical analysis and antimicrobial activities of parankipaddai kudineer (decoction) used in skin diseases
- Formulation of herbal drink & herbal lozenge from *Aporosa lindleyana* Bail young leaves & bioactivity studies
- Development of instant nutritional porridge as a supplementary food for the patients with diabetic mellitus and cholesterol