



## Dr. P. Ranasinghe

Research Fellow

Herbal Technology Section

### Qualifications

PhD, M. Phil, B.Sc (Agric)

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### Specialized Fields

Natural Product Biochemistry, Bioassay and cell culture  
Plant Tissue culture  
Technology Commercialization

### Interest Areas

- Pharmaceutical Biochemistry of functional natural products
- Enzyme and Cell based bioassays
- Technology commercialization and startup
- Alcoholic beverage fermentation and palm sap

### Publication

1. Kodikara, K.A.S., J. Lokupulukkutuge, **P. Ranasinghe**, M. Kanishka, F. Dahdouh-Guebas, and N. Koedam, "Stress-induced carbon starvation in *Rhizophora mucronata* Lam. seedlings under conditions of prolonged submergence and water deficiency: Survive or succumb, *Botanica Serbica*, vol. 44, no. 2, pp. 149–162, 2020. <https://doi.org/10.2298/BOTSERB2001011S>
2. Pathiranage, H. W. T., Weeratunge, H. D., N. M. Mubarak, Godakumbura, P. I., & **Ranasinghe, P.** (2020). *In Vitro* Antioxidant and Antidiabetic Potentials of *Syzygium caryophyllatum* L. Alston, 2020. *Evidence-Based Complementary and Alternative Medicine*, 2020, 1–15. <https://doi.org/https://doi.org/10.1155/2020/9529042>
3. Kodikara, K. A. S., **Ranasinghe, P.**, Irfan, A., Loku Pullukuttige, J., Madarasinghe, S. K., Farid, D. G., & Nico, K. (2020). Oxidative stress, leaf photosynthetic capacity and dry matter content in young mangrove plant *Rhizophora mucronata* Lam. under prolonged submergence and soil water stress. *Physiology and Molecular Biology of Plants*. <https://doi.org/10.1007/s12298-020-00843-w>
4. Gunathilaka, T. L., Samarakoon, K., **Ranasinghe, P.**, & Peiris, L. D. C. (2020). Review Article Antidiabetic Potential of Marine Brown Algae - a Mini Review, *Journal of Diabetes Research*, 2020. <https://doi.org/10.1155/2020/1230218>.
5. Gunathilaka, T. L., Samarakoon, K. W., **Ranasinghe, P.**, & Peiris, L. D. C. (2019). *In-Vitro* Antioxidant, Hypoglycemic Activity, and Identification of Bioactive Compounds in Phenol-Rich Extract from the Marine Red Algae *Gracilaria edulis* (Gmelin) Silva. *Molecules* (Basel, Switzerland), 24(20), 1–16. <https://doi.org/10.3390/molecules 24203708>.
6. Gunawardena, H., Silva, R., & **Ranasinghe, P.** (2019). Human plasma dynamically quenches the fluorescein at the initial point of oxygen radical absorption capacity

(ORAC) assay. BMC Research Notes, 12(1), 809. <https://doi.org/10.1186/s13104-019-4845-4>

7. Gunawardena, H. P., Silva, R., Sivakanesan, R., **Ranasinghe, P.**, & Katulanda, P. (2019). Poor Glycaemic Control Is Associated with Increased Lipid Peroxidation and Glutathione Peroxidase Activity in Type 2 Diabetes Patients. *Oxidative Medicine and Cellular Longevity*, 2019, 1–10. <https://doi.org/10.1155/2019/9471697>.
8. Dharmadasa, R. M., Lintha, A., Wijesekera, R. G. S., Abeyesinhe, D. C., & **Ranasinghe, P.** (2019). Use of Halosarcia indica (Willd.) Paul G. Wilson Extracts for Low Salted Dried Fish Production. *World Journal of Agricultural Research*, 7(4), 132–136. <https://doi.org/10.12691/wjar-7-4-3>
9. Kathirgamanathar, S., Abeysekera, W. P. K. M., Weerasinghe, D. M. K. P., **Ranasingha, P.**, & Binduhewa, A. M. C. U. (2018). Antioxidant, anti-amylase and lipid lowering potential of leaves of *Aporosa Indleyana* Baill. (Kebella). *Sri Lanka Journal Of Biology*, 3(1), 1.
10. Shanura Fernando, I. P., Asanka Sanjeewa, K. K., Samarakoon, K. W., Lee, W. W., Kim, H.-S., **Ranasingha, P.**, Gunasekara, U. K. D. S.S. & Jeon, Y.-J. (2018). Antioxidant and anti-inflammatory functionality of ten Sri Lankan seaweed extracts obtained by carbohydrase assisted extraction. *Food Science and biotechnology*. 1-9.
11. Shanura Fernando, I. P., Asanka Sanjeewa, K. K., Samarakoon, K. W., Lee, W. W., Kim, H.-S., Kim, E.-A., **Ranasingha, P.**, Gunasekara, U. K. D. S.S. Premakumara G. A. S. & Jeon, Y.-J. (2018). Preliminary screening of two marine algae and sea grass harvested from Sri Lankan waters against the LPS-induced inflammatory responses in RAW 264.7 macrophages and *in vitro* zebrafish embryo model. *Journal of National Science Foundation of Sri Lanka*, 46(2): 117-124.
12. Abeysekera, W.K.S.M.1., Jayawardana, S.A.S.1., Abeysekera, W.P.K.M., Yathursan, S., Premakumara, G.A.S. and **Ranasinghe, P.** (2017). Antioxiant potential of selected whole grain cereals consumed by Sri Lankan: A comparative *in vitro* *Sri Lanka Journal of Biology*, 2 (2): 12-24.
13. Fernando IPS, Sanjeewa KKA, Samarakoon KW, Lee WW, Kim HS, Kang N, **Ranasinghe P**, Lee HS, Jeon YJ. (2017). A fucoidan fraction purified from *Chnoospora minima*; a potential inhibitor of LPS-induced inflammatory responses. *International Journal of Biological Macromolecules* 104, 1185–1193
14. Fonseka SI, Adikari S, Jayasekera LR, **Ranasinghe P**, Premakumara GAS. (2017). Seed germination inhibitory effect *Caryota urens* L. seed pericarp on rice and associated weeds. *Tropical Plant Research*, 4, 2349–9265.
15. Wimalasiri, G. E. M., **Ranasinghe, P.**, Gunaratne, D.M.A.L.P. Vidhana Arachchi (2016). Antioxidant and anti-diabetic properties of *Caryota urens* (Kithul) flour. *Procedia Food Science* 6: 181 – 185
16. Weerasekera, K.R., **Ranasinghe, P.**, Dhammarathana, I., Tissera, M.H.A. and Ariyawansa, H.A.S. (2013). Investigation of antioxidant activity of an Ayurvedic formulation Chandraprabha Vati. *Sri Lankan Journal of Indigenous Medicine*, 3 (2), 187-190.
17. Ranasinghe, P., **Ranasinghe, P.**, Abeysekera, W.P.K.M., Premakumara, G.A.S., Perera Y.S., Gurugama, P., and Gunatilake, S.B., (2012). *In vitro* erythrocyte membrane stabilization properties of *Carica papaya* L. leaf extracts, *Pharmacognosy Research*, 4 (4), 196-202.
18. **Ranasinghe, P.**, Premakumara, G.A.S., Wijayarathne, C.D. and Ratnasooriya, W.D. (2011). Antioxidant activity of *Caryota urens* (L.) sap. *Tropical Agricultural Research*, 23 (2), 117-125.
19. **Ranasinghe, P.** and Ide, T. (2006). Dietary fish oil and sesamin synergistically increased hepatic fatty acid oxidation in Zucker rats. *In Herbal medicine phytopharmaceuticals and other natural products: Trends and Advances.*

Arambewela, L.S.R., Wimalasena, S. and Gunawardana, N. (Eds.) Jointly published by the Centre for the Science and Technology of the Non-aligned and Other Developing Countries, New Delhi India and Institute of Chemistry, Sri Lanka. Page 389-394.

20. Ide, T., Hong, D.D., **Ranasinghe, P.**, Takahashi, Y., Kushiro, M. and Sugan. (2004). Interaction of dietary fat types and sesamin on hepatic fatty acid oxidation in rats. *Molecular and Cell Biology of Lipids, Biochimica et Biophysica Acta*. 1682 (1-3), 80-91.
21. Yapabandara, Y.M.H.B. and **Ranasinghe, P.** (2000). Tissue culture for mass production of aquatic plant species. *Asia Pacific Tech. Monitor*, 17(6), 49-55

## Patents

1. Evaluation of natural product/medicinal plant extracts for their glucose and lipid metabolism in 3T3 L1 cell lines
2. Commercialization of caned kithul toddy as sparking kithul ra
3. Evaluation of extraction methods for purification of lignified kithul fiber from Kithul leaf and leaf-sheaths and evaluation of application potentials
4. Chemometric fingerprinting of natural and adulterated toddy types
5. Studies on functional properties and active principals of underutilized wild fruits and marine alga