



Deepani Upeka Rajawardana

Senior Research Scientist

Food Technology Section

Qualifications

B.Sc (University of Bangalore, 2002)

M.Sc (University of Peradeniya, 2006)

PhD Candidate (University of Colombo, 2015-Todate)

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Specialized Fields

Food microbiology, Dairy technology, Food hygiene and GMP, ISO 17025:2005, ISO 9001:2008, ISO 22000:2005 Quality Management Systems.

Interest Areas

Probiotic functional foods, Metagenomics and Quality management systems related to food industry.

Publications

Publications

1. Rajawardana, D.U., Hewajulige , I.G.N., Nanayakkara, C.M., Athurupana, S.K.M.R.A., and Madhujith, T.(2018). Preliminary Evaluation of Probiotic Potential of Yeasts Isolated from Bovine Milk and Curd of Sri Lanka. *Tropical Agricultural Research* Vol. 30 (3): 27–41.
2. Sandarenu M.W.A.K, Rajawardana D.U, Fernando K.M.E.P (2017). Probiotic Potential and Antibiotic Resistance of Lactic Acid Bacteria Isolated from Curd in Sri Lanka. *International Journal of Multidisciplinary Studies (IJMS)*, vol. 4 (2): pp 9 – 21.
- [National Center for Biotechnology Information](#) (NCBI) GEN Bank submissions of microbial genomic sequences from 77 new isolates from Sri Lanka.

Research communications

1. Rajawardana D.U, Hewajulige I.G.N, Biggs P.J, Wickramasinghe S, Nanayakkara C.M, Gunasekara M.M.N.P.N and Perera S (2019). Preliminary analysis of milk microbiome data of Sri Lankan dairies using 16S rRNA gene sequencing in Illumina MiSeq platform. *Proceedings of ITI Biennial Research Symposium – 17-18th December 2019*, pp 14.
2. Rajawardana D.U, Hewajulige I.G.N and Nanayakkara C.M (2019). Beneficial Microorganisms [from Sri Lankan Dairies as Candidates in](#) Nutrition, Healthcare and Biochemical Industries. 5th COMSATS-ISESCO-INIT International Conference on 'Agriculture, Biotechnology and Food Security: Role of ICTs' Hosted by The Young Affiliates Network (TYAN), November 4-6, 2019, Monastir, Tunisia.
3. Rajawardana D.U ¹, Hewajulige I.G.N ¹, Nanayakkara C.M ² and Gayani M.G. Antimicrobial activity of two probiotic *Enterococcus faecalis* strains isolated from Sri Lankan dairies: a possible alternative source of antimicrobial agents against invading microorganisms.

Extended Abstracts of FoodTechno 2019 (Innovation to Application), 05th Annual Research Sessions of IFSTSL, BMICH, Colombo, Sri Lanka, pp 7-14.

4. Ranatunga S.A.C.L., Rajawardana D.U., Ruwandeepika H.A.D (2018). Isolation and identification of probiotic yeast from goat milk. Proceedings of 38th Annual Sessions of the Institute of Biology, Sri Lanka (Abstract No-2-07).

5. Rajawardana D.U, Hewajulige I.G.N, Nanayakkara C.M and Thiwanka M.S (2017).Preliminary Assessment of Yeast Diversity Originating from Raw Bovine Milk and Curd of Sri Lanka. Proceedings of 3rd Biennial Research Symposium of the Industrial Technology Institute, Sri Lanka, pp 43-44.

6. Rajawardana D.U, Nanayakkara and C.M Hewajulige I.G.N (2017). Sri Lankan Dairy Yeasts: Isolation, Identification and Production of Single Cell Protein from Whey. Abstracts and Proceedings of Annual Research Symposium – University of Colombo, Sri Lanka, pp 263.

7. Rajawardana D.U, Hewajulige I.G.N and Nanayakkara C.M (2017). Identification of potentially probiotic Lactobacillus spp. from dairy sources of Sri Lanka as candidates for future food applications. Proceedings of International Conference on Food Quality, Safety and Security – FOOD QUALSS 2017, Colombo, Sri Lanka, pp. 29.

8. Rajawardana D.U, Hewajulige I.G.N, Nanayakkara and W.A.D.S. Shanaka (2017). Assessment of safety attributes of potentially probiotic lactic acid bacteria (LAB) of Sri Lankan dairy origin for future food applications. Abstracts and Proceedings of 4thInternational Conference on Multidisciplinary Approaches (iCMA),Hikkaduwa, Sri Lanka, pp 64.

9. Sandarenu M.W.A.K, Rajawardana D.U, Fernando K.M.E.P (2017). Characterization and screening for probiotic potential of lactic acid bacteria isolated from curd. Abstracts and Proceedings of 4thInternational Conference on Multidisciplinary Approaches (iCMA),Hikkaduwa, Sri Lanka, pp153.

10. Sandarenu M.W.A.K, Rajawardana D.U, Fernando K.M.E.P (2017). Probiotic Potential and Antibiotic Resistance of Lactic Acid Bacteria Isolated from Curd in Sri Lanka. International Journal of Multidisciplinary Studies (IJMS), vol. 4 (2): pp 9 – 21.

11. Rajawardana D.U, Hewajulige I.G.N, Nanayakkara and D.A.V.Nilukshi (2017). Safety assessment and antibiotic susceptibility of potentially probiotic yeasts isolated from dairy sources of Sri Lanka. Extended Abstracts of FoodTechno 2017 (Innovation to Application), 03rd Annual Research Sessions of IFSTSL, BMICH, Colombo, Sri Lanka, pp 1-5.

12. Rajawardana D.U, Hewajulige I.G.N and Nanayakkara C.M (2017).Screening and in vitro selection of Lactobacillus strains isolated from Sri Lankan dairies with potential bile salt (BSH) hydrolysing activity for the Abstracts and Proceedings of Second Asia-Pacific Conference on Multidisciplinary Research (APMR2017) Colombo, Sri Lanka, pp 42.

13. Rajawardana D.U, Hewajulige I.G.N and Nanayakkara C.M (2017). Probiotic potential of exopolysaccharide producing Lactobacillus plantarum sp. isolated from Sri Lankan dairies. Abstracts and Proceedings of 10th International Research Conference, General Sir John Kotelawala Defence University, Sri Lanka, pp 37.

14. Chandimala U.R, Rajawardhana D.U,Lakshman P.L.N (2017). Isolation and characterization of yeasts from locally fermented foods. Proceedings of 4thConference on Agriculture and Forestry (ICOAF-2017), Sri Lanka, pp.66.

15. Rajawardana D.U, Hewajulige I.G.N and Nanayakkara C.M (2017).Biodiversity and technological potential of Sri Lankan dairy micro-flora with special emphasis on public health and food safety. Proceedings of SLAYS Open Forum 2017, Colombo, Sri Lanka, pp 44.

16. Chandimala U.R, Rajawardhana D.U, Lakshman P.L.N (2017). Isolation and characterization of yeasts from locally fermented foods. Proceedings of Symposium on Agriculture and Environment (ISAE-2017), University of Ruhuna, Sri Lanka, pp.6.
17. Rajawardana D.U, Athurupana S.K.M.R.A, Hewajulige I.G.N and Nanayakkara C.M (2016). Characterization and Identification of Yeasts from Raw Cows' Milk and Fermented Dairy Foods. Abstracts and Proceedings of 9th International Research Conference, General Sir John Kotelawala Defence University, Sri Lanka, pp 190.
18. Rajawardana D.U, Raju P.N, Rashmi H.M. and Ganguli S. (2016). Development of a New Optimized Probiotic Food Applying Response Surface Methodology. Abstracts and Proceedings of 9th International Research Conference, General Sir John Kotelawala Defence University, Sri Lanka, pp.195.
19. Rajawardana D.U, Hewajulige I.G.N, Nanayakkara C.M and Jayawardana D (2016). Enumeration and characterization of lactic micro-flora from bovine milk in selected Sri Lankan dairies. Abstracts and Proceedings of the 36th Annual Sessions, the Institute of Biology, Sri Lanka, pp 30.
20. Rajawardana D.U, Hewajulige I.G.N and Nanayakkara (2016). In-vitro transit tolerance and technological potential of β -galactosidase producing *Kluyveromyces* Spp. newly isolated from selected dairy sources of Sri Lanka. Abstracts and Proceedings of 4th International Conference on Ayurveda, Unani, Siddha & Traditional Medicine (ICAUST 2016), Institute of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka, pp 144.
21. Rajawardana D.U, Athurupana S.K.M.R.A, Hewajulige I.G.N and Nanayakkara C.M (2016). Isolation and Screening of Potential Probiotic Yeast Strains in Sri Lankan Dairies. Abstracts and Proceedings of 16th International Research Conference, Science Council of Asia (SCA-2016), Colombo, Sri Lanka, pp 215.
22. Athurupana S.K.M.R.A, Rajawardana D.U, Madujith T (2015). Isolation and Identification of Yeast Strains from Curd and Screening for the Possibility of Industrial Applications. Proceedings of Faculty of Agriculture Undergraduate Research Symposium (FAuRS-2015), University Peradeniya, Sri Lanka, pp 166.
23. Rajawardana D.U, Raju P.N, Rashmi H.M, Ganguli S. (2015). Comparison of two packaging materials for the storage of synbiotic dairy beverage. Proceedings of the ITI Second Biennial Research Symposium, Industrial Technology Institute, Colombo, Sri Lanka, pp 03.
24. Rajawardana D.U, Raju P.N, Rashmi H.M, Ganguli S. (2015). Development of synbiotic composite substrate for food applications fermented with probiotic *Lactobacillus plantarum* (Lp9). Proceedings of the Sri Lankan Society for Microbiology: Third Annual Conference and Scientific Sessions, Kandy, Sri Lanka, pp 13.
25. Rajawardana D.U, Raju P.N, Rashmi H.M, Ganguli S, (2014). Development of oats and honey based synbiotic functional dairy beverage. Proceedings of the 2nd PAi (Probiotic Association of India) Conference and International Symposium on "Probiotic and Microbiome – Gut and Beyond", 3-4th November 2014, India Habitat Centre, New Delhi, India.
26. Rajawardana DU, Wijedeera EN, Gooneratne J, (2010). Studies on modified methods for pectin precipitation in commercial production of pectin from yellow passion fruit peel (*Passiflora Indica*). Proceedings of the 6th Scientific Sessions, Sri Lanka Association for the Advancement of Science (SLAAS) at the University of Colombo, Sri Lanka, pp22..
27. Gooneratne J, Rajawardana DU, Munasinghe LWS, Piyasena CL (2006). Coconut fat intake and Cardiovascular disease status- A cross sectional study. Proceedings of the 63rd Scientific Sessions, Sri Lanka Association for the Advancement of Science (SLAAS) at the Open University Sri Lanka.

	<p>28. Gooneratne J, Rajawardana DU, Munasinghe LWS, Piyasena CL (2007). Coconut fat intake and cardiovascular risk status of a high coconut consuming community of Sri Lanka. Proceedings of the 10th Asian Congress of Nutrition, Taipei, Taiwan, pp 115.</p> <p>29' Silva KDRR, Rathnayake WMUK, Rajawardana DU (2005). Comparison of Cardiovascular risk factors in fishing and farming communities in Sri Lanka. Proceedings of the 18th International Congress of Nutrition, Durban, South Africa. (South African Journal of Clinical Nutrition, Annuals of Nutrition and Metabolism; 49 (Suppl 1): 171.</p>
Patents	-
Major Projects Undertaken	<ul style="list-style-type: none"> • Principal Investigator- "Isolation, Identification and Characterization of Potentially Probiotic Lactic Acid Bacteria and Yeast of Dairy origin in Sri Lanka for Future Application as Probiotic Starters". Funding Organization: Industrial Technology Institute (TG 15/117), • Co-Researcher -"Biodiversity and Technological Potential of Micro-flora from Selected Sri Lankan Dairies". Funding Organization: NSF • Principal Investigator-"Screening and Assessment of Lactic Acid Bacteria isolated from Sri Lankan Dairies (under TG 15/117) as Source of Functional Ingredients for the Industry. Funding Organization: Industrial Technology Institute (TG 18/149). • Co-Researcher -"Chemical residues in bovine milk produced by medium and large scale dairy farms and their public health concern in Sri Lanka". Funding Organization: Industrial Technology Institute (TG 19/171). • Principal Investigator-"Development of technologies to utilize waste whey in local dairy bio-processing industries for the production of value added/functional beverages". Funding Organization: Industrial Technology Institute. • Co-Researcher –"Development of technology for the production of synbiotic dairy beverage applying response surface methodology for optimization of process". Funded by NAM S&T Centre, Government of India and research carried out at NDRI, Haryana, India. • Co-Researcher-"Polysaccharides of coconut kernel as a functional food and its blood cholesterol and blood glucose lowering effects on human subjects". Funding Organization: NSF <p>Consultancy service for the accreditation (ISO 17025:2005) of the Fertilizer Testing Laboratory of Ceylon Fertilizer Company (Ltd.).</p>