

Rashini Y. Baragamaarachchi PhD, MSc, BSc.

Senior Lecturer Grade II

Department of Biomedical Science

Faculty of Health Sciences

CINEC Campus

Sri Lanka

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### **Professional qualifications**

- Senior Lecturer Grade II in Biomedical Science, Department of Biomedical Sciences, Faculty of Health Sciences, CINEC Campus – 2019 to present
- Secretary - Ethics Review Committee of CINEC Campus - 2020 to Present
- Certificate in teaching methodology in higher education – near completion
- Biosafety laboratory (BSL-1) training, University of Tennessee, Knoxville, USA- 2018
- PhD researcher – Industrial Technology Institute, Sri Lanka – 2014 to 2019

### **Educational qualifications**

- Doctor of Philosophy in Molecular Biology and Biotechnology. Split site PhD at University of Tennessee, USA and awarded by University of Colombo, Sri Lanka- 2019
- Master of Science in Molecular Life Sciences, Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo (Merit award) - 2014
- Bachelor of Science in Genetics, Bangalore University, India (First class) – 2011

### **Administrative Experience**

- Chief Academic Officer, Department of Biomedical Science, Faculty of Health Science, CINEC Campus – 2020 to present
- Batch coordinator, Faculty of Health Sciences, CINEC campus – 2019 to present
- Examination work coordination, Faculty of Health Sciences, CINEC campus – 2019
- Academic administrator to maintain quality management system documentation of Department of Biomedical Science, Faculty of Health Sciences, CINEC Campus

## **Teaching Experience and curriculum development**

- I have been conducting lectures, tutorials, examinations on modules; Introduction to Biomedical Science, Biochemistry, Molecular Biology, General Microbiology and Academic writing
- Developed the curriculum for Higher National Diploma in Biomedical Science for CINEC Campus (approval in process)

## **Undergraduate Supervision**

1. Name: Welgama, W.D.P., Wickramarathne, D.V., Deshan, H.M.N., Pannila, M.B.P. (mini research project) - completed  
Project: Analysis of Neutrophil-Lymphocyte Ratio in Full Blood Count Reports in Patients Confirmed with Fever
2. Abesinghe, A.H.M.A.N, Edirisinghe, S., Vithushan, J., Nitharshani, R.D. (mini research project) - completed  
Project: Pilot Study of Variation of Neutrophil Counts in Full Blood Counts in Relation to The Age; Sri Lankan Perspective
3. Kudhoos, N.S., Goonathilaka, P.A., Dewmanthi, W.A.J., Vidanapathirana, K.P. (mini research project) - completed  
Project: Haematological Analysis of Variations in Platelet Count in Laboratory Reports; Pilot Study
4. Hathnagoda, H.E.M.R.T.K., Edirisinghe, D.P.T., Rathnayaka, H.G.N.T. (mini research project) - completed  
Project: Age and Sex Related Variations in Haemoglobin Level; A Pilot Study

## **Research Interest**

Research interests lies in the fields of Molecular Microbiology, Molecular immunology, Toxicology, Biopesticide formulation development and etc.

## **Research and other grants**

- Visiting Research Scholar/ Research Associate I, Department of Entomology and Plant Pathology, University of Tennessee, USA - 2018
- Agriculture and Food Research Initiative (AFRI) program from the US Department of Agriculture National Institute of Food and Agriculture (2018-67013-27820) – partial funding support for research work at University of Tennessee - 2018

- Overseas Special Training Program special grant (OSTP/2017/67) from National Science Foundation, Sri Lanka - 2018
- Research student- Competitive research grant (RG/2011/BT/05) from National Science Foundation, Sri Lanka (2014-2016)
- Research student – Government Treasury grant to ITI (TG/16/121) from government treasury, Sri Lanka – 2016 to 2018
- Competitive Travel grant (RGB/GEN/06/2015/03/20) from National Science Foundation, Sri Lanka -2015

### Research publications

1. **Baragamaarachchi, R. Y.**, Samarasekara J. K. R. R., Weerasena, O. V. D. S. J., Lamour, K., Jurat-Fuentes, J. L., (2019) Identification of a native *Bacillus thuringiensis* strain from Sri Lanka active against Dipel-resistant *Plutella xylostella*. PeerJ 7:e7535. <https://www.researchgate.net/deref/http%3A%2F%2Fdoi.org%2F10.7717%2Fpeerj.7535>
2. **Baragamaarachchi, R. Y.**, Samarasekara J. K. R. R., Weerasena, O. V. D. S. J., Nishantha, K. M. W. P., Dee, M., Ownley, B., Jurat-Fuentes, J. L., (2019) Dual active *Bacillus thuringiensis* strains with potential to manage phytopathogenic fungi and insect pest of Cabbage (*Brassica oleracea* L. var. *capitata*) crops. Journal of the National Science Foundation (In review).
3. **Baragamaarachchi, R. Y.**, Samarasekara J. K. R. R., Weerasena, O. V. D. S. J., (2019) Biological control of *Cnaphalocrocis medinalis* using a potential *Bacillus thuringiensis kurstaki* strain. Ready to submit to Scientific Reports.
4. **Baragamaarachchi, R. Y.**, Weerasena, O. V. D. S. J., Handunnetti, S. M. and Samarasekara, R., (2015) Recommendations to enhance reproducibility and reliability in comet assay. Proceedings of the 4<sup>th</sup> Global summit on Toxicology, Journal of Clinical Toxicology; Volume 5(3), 94.
5. **Baragamaarachchi, R. Y.**, Weerasena, O. V. D. S. J., Handunnetti, S. M. and Samarasekara, R., (2015) Cytotoxic and genotoxic potential of *Walidda antidysenterica* on human lymphocytes- A herb used in Sri Lankan traditional medicine. Proceedings of the 4<sup>th</sup> Global summit on Toxicology, Journal of Clinical Toxicology; Volume 5(3), 101.

## Presentations

### Oral Presentations

1. Welgama, W.D.P., Wickramarathne, D.V., Deshan, H.M.N., Pannila, M.B.P., De Silva, G.W.B.P., Silva, S.P.S.M., **Baragamaarachchi, R.Y.** (2020). Analysis of Neutrophil-Lymphocyte Ratio in Full Blood Count Reports in Patients Confirmed with Fever. CINEC student Research Symposium, 48.
2. Abesinghe, A.H.M.A.N, Edirisinghe, S., Vithushan, J., Nitharshani, R.D., Silva, S.P.S.M., **Baragamaarachchi, R.Y.** (2020). Pilot Study of Variation of Neutrophil Counts in Full Blood Counts in Relation to The Age; Sri Lankan Perspective. CINEC student Research Symposium, 49.
3. **Baragamaarachchi, R.Y.**, Samarasekara, R., Weerasena, O.V.D.S.J., Jurat-Fuentes, J.L., (2019). *Bacillus thuringiensis* strain from Sri Lanka with insecticidal activity against *Plutella xylostella* and *Cnaphalocrocis medinalis*. Proceedings of Sri Lankan Academy of Young Scientists International Conference, 14.
4. **Baragamaarachchi, R. Y.**, Samarasekara, R., Sarathchandra, S. R. and Weerasena, O. V. D. S. J. (2017). Entomocidal activity of native strains of *Bacillus thuringiensis kurstaki* against rice pest *Cnaphalocrocis medinalis*. 3<sup>rd</sup> Biennial Research Symposium of Industrial Technology Institute, 26-27.
5. **Baragamaarachchi, R. Y.**, Samarasekara, R. and Weerasena, O. V. D. S. J. (2017). Evaluation of chitinase activity of Sri Lankan *Bacillus thuringiensis* strains. Annual sessions of Sri Lanka Association for the Advancement of Science, 18.
6. **Baragamaarachchi, R.Y.**, Weerasena, O.V. D. S. J. and Samarasekara, R., (2016). Screening of novel chitinolytic *Bacillus thuringiensis* strains isolated from Sri Lankan soil. 8<sup>th</sup> annual scientific sessions of Institute of Biochemistry, Molecular Biology & Biotechnology, University of Colombo, 25.
7. **Baragamaarachchi, R. Y.**, Karunarathna, N. M. K., Weerasena, O. V. D. S. J., Nishantha, K. M. D. W. P., Madanayake, M. A. R. A., and Samarasekara, R., (2016). Evaluation of insecticidal activity of Sri Lankan *Bacillus thuringiensis kurstaki* against *Plutella xylostella* and *Cnaphalocrocis medinalis*. Annual sessions of Sri Lanka Association for the Advancement of Science, 15.
8. **Baragamaarachchi, R. Y.**, Weerasena, O. V. D. S. J. and Samarasekera, R., (2015). Isolation, identification and molecular characterization of *Bacillus thuringiensis* serovar *graciosensis* from Sri Lankan soil. 7<sup>th</sup> Annual scientific sessions of Institute of Biochemistry, Molecular Biology & Biotechnology, University of Colombo, 26.

9. **Baragamaarachchi, R. Y.**, Weerasena, O. V. D. S. J. and Samarasekara, R., (2015). Insecticidal indigenous *Bacillus thuringiensis* strains with potential Lepidopteran activity. 2<sup>nd</sup> Biennial Research Symposium of Industrial Technology Institute, 30-31.
10. **Baragamaarachchi, R. Y.**, Weerasena, O. V. D. S. J., and Samarasekara, R., (2015). Insecticidal active *Bacillus thuringiensis* to control Lepidopteran pests of agricultural crops. 8<sup>th</sup> International Research Conference of Kothalawala Defence University, 166.
11. **Baragamaarachchi, R. Y.**, Weerasena, O. V. D. S. J. and Samarasekara, R., (2015). Isolation and molecular characterization of Sri Lankan *Bacillus thuringiensis* for Lepidopteran activity. 44<sup>th</sup> Annual Sessions of Institute of chemistry Ceylon 32, 11.
12. **Baragamaarachchi, R. Y.**, De Silva Kande, Y., Weerasena, O. V. D. S. J. and Samarasekara, R., (2015). Antibiotic Sensitivity of *Bacillus thuringiensis* strains isolated from Sri Lanka. 35<sup>th</sup> Annual Sessions of the Institute of Biology, 07.

### Poster Presentations

1. Kudhoos, N.S., Goonathilaka, P.A., Dewmanthi, W.A.J., Vidanapathirana, K.P., **Baragamaarachchi, R.Y.** (2020). Haematological Analysis of Variations in Platelet Count in Laboratory Reports; Pilot Study. CINEC student Research Symposium, 52.
2. Hathnagoda, H.E.M.R.T.K., Edirisinghe, D.P.T., Rathnayaka, H.G.N.T., **Baragamaarachchi, R.Y.** (2020). Age and Sex Related Variations in Haemoglobin Level; A Pilot Study. CINEC student Research Symposium, 53.
3. **Baragamaarachchi, R.Y.**, Vidanapathirana, A. C., Weerasena, O. V. D. S. J., Samarasekara, R. and Nishantha, K. M. D. W. P., (2016). Sri Lankan *Bacillus thuringiensis* isolates with insecticidal and chitinase activity. The NSF Research summit, 88.
4. **Baragamaarachchi, R. Y.**, Weerasena, O. V. D. S. J., Handunnetti, S. M. and Samarasekara, R., *In Vitro* Genotoxicity Evaluation of *Walidda antidysenterica* by Comet Assay (2014). 2<sup>nd</sup> International Conference on Frontiers in Molecular Life Sciences, Sri Lanka, 54.

### Awards

1. Best poster presentation award, CINEC student Research Symposium – 2020
2. Semifinalist, 3 minutes thesis competition organized by Sri Lankan Academy of Young Scientists - 2019
3. Postgraduate Research Scholarship, National Science Foundation, Sri Lanka – 2017 to 2018

4. Best poster award- Food and agriculture, National Science Foundation Research summit, Colombo, Sri Lanka - 2016
5. Excellent poster presentation award, 2<sup>nd</sup> International Conference on Frontiers in Molecular Life Sciences. Colombo, Sri Lanka - 2014

### **Special Services**

- Co-chaired the session 'Clinical Biochemistry' at CINEC student research symposium - 2020
- Key organizing committee member of CINEC student research symposium - 2020
- Editorial board member of the proceedings of CINEC student research symposium – 2020
- Organization of White coat ceremony of Faculty of Health Sciences – 2020
- Academic coordinator for student talent show of Faculty of Health Sciences – 2020
- Academic coordinator of annual food festival organized by students of Faculty of Health Sciences - 2020
- Invited lecture for Induction Programme at CINEC Campus – 2019, 2020

### **National Services**

- Knowledge dissemination at 'Shilpa Sena' trade exposition 2019 organized by Ministry of Science Technology and Research – Technology zone (under Biotechnology; native biopesticide formulations to control cabbage pest (diamondback moth) and rice pest- (rice leaf folder). This exposition was designed to add science and technology to the Sri Lankan mindset and push for a sustained economic impact

### **Resource person**

- BSc (Hons) Biomedical Science curriculum revision committee - 2020
- Laboratory complex designing of Faculty of Health Science, CINEC Campus - 2019 to present
- Certificate course in Immunological Techniques, Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo – 2014 and 2015

### **Memberships**

Organization for women in science for the developing world

Sri Lanka Association for the Advancement of Science

Sri Lanka Academy of Young Scientists

Sri Lanka Girl Guides Association