

E.Harshani Lakmali Perera

PhD (Reading), BSc(Hons)



Lecturer in Biomedical Sciences
Department of Biomedical Sciences,
Faculty of Health Sciences,
CINEC Campus, Malabe
Sri Lanka.

Contact no: 0713156823

Email: harshani.perera@cinec.edu / harshlakmali22@gmail.com

- Lecturer in Biomedical Sciences, CINEC Campus, Malabe
- Regulatory manager- Biomedite Pvt. Ltd, Dehiwala
- Graduate Research Assistant, Faculty of Medicine, Ragama
- Medical Laboratory Technologist- Grade I, Lanka Hospitals Diagnostics, Narahenpita

Professional qualifications

- August 2022 onwards - Lecturer in Biomedical Sciences, CINEC Campus, Malabe
- August 2021- August 2022- Regulatory Manager, Biomedite Pvt. Ltd, Dehiwala, Sri Lanka
- September 2017- August 2021- Former Graduate Research Assistant, Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya
- February 2016- September 2017-Medical Laboratory Technologist-Grade I, Microbiology and serology Laboratory, Lanka Hospitals Diagnostics, Narahenpita.

Educational qualifications

- Since 2018 - P.hD in Molecular Entomology (Reading), Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya
Research Title: Forecasting and analysis of Dengue epidemics in district of Gampaha using statistical models.
Specialized areas – Entomology, Molecular Biology, Statistics
- Since 2019 – M.Sc/Pg.Dip in operational Research, Department of mathematics, Faculty of Engineering, University of Moratuwa
Specialized areas –Statistics, Operational Research techniques, Management, Computer Science

- 2016 - Bachelor of Science (Hons) in Molecular Biology and Biochemistry, Faculty of Science, University of Colombo, Sri Lanka
Research Title: 'Cloning and Expression of Beta-xylosidase gene of *Aspergillus niger* in *Escherichia coli*'
Specialized areas –Molecular biology, Microbiology, biochemistry, chemistry
Class: Second Class upper division

Administrative Experience

- 2022- Instrumentation, Higher Diploma in Biomedical sciences Co-Coordinator, Faculty of Health Sciences, CINEC Campus
- 2022 -Human Genetics, Instrumentation, Immunobiology module coordinator, Faculty of Health Sciences, CINEC Campus
- 2022- 1st Year Batch Coordinator, Faculty of Health Sciences, CINEC Campus
- 2023-upto date- 7th Batch Coordinator, Faculty of Health Sciences, CINEC Campus
- Faculty of Health Sciences representative at CINEC International research symposium, 2023.
- Curriculum Development and Evaluation Committee- Member- CINEC Campus, Malabe,2024.

Responsibilities and Duties as a Lecturer

- Conducting lectures, laboratory practical and tutorials in Human Genetics, Molecular Biology, Instrumentation, Ethics, research methodology and Statistics, Academic writing, Molecular biology, Laboratory parasitology, Clinical Microbiology, General microbiology, Applied Biochemistry modules for the B.Sc (Hons) in Biomedical Sciences degree programme.
- Conducting lectures, laboratory practical and tutorials in Biostatistics and bioinformatics, Fundamental of genetics and molecular biology for the Higher Diploma in Biomedical Science.
- Conducting lectures, laboratory practical and tutorials in Pharmaceutical and cosmeceutical microbiology molecular biology for the Higher Diploma in Pharmaceutical and cosmetic science.
- Conducting lectures, laboratory practical, Assignments and tutorials in Academic writing for Advanced Certificate Course in Health Sciences (ACHS).
- Setting and conducting examinations and paper marking for all the teaching modules.

Teaching Experience and curriculum development

- Working as a lecturer in the department of biomedical sciences and involved in conducting lectures, practicals, tutorials and conducting main examinations Human Genetics, Molecular Biology, Instrumentation, Ethics, research methodology and Statistics, Academic writing, Molecular biology, Laboratory parasitology, Clinical Microbiology, General microbiology, Applied Biochemistry modules for the B.Sc in

Biomedical Science degree programme from 2022, August to date.

- Conducting the lectures, practical, tutorials and conducting main examinations in Biostatistics and bioinformatics, Fundamental of genetics and molecular biology for the Higher Diploma in Biomedical Science module from 2022, August to date.
- Conducting lectures, laboratory practical and tutorials in Pharmaceutical and cosmeceutical microbiology molecular biology for the Higher Diploma in Pharmaceutical and cosmetic science.
- Conducting lectures, laboratory practical, Assignments and tutorials in Academic writing for Advanced Certificate Course in Health Sciences (ACHS).
- Completed Staff Development Program (SD) at CINEC coordinated by Prof. Deepthi Bandara and academic professionals from August 2023- January 2024.
- Conducted one day workshop on “Genetic Disorders and identification”, as a visiting lecturer for the undergraduate students of B.Sc in Biomedical Science at Cinec Campus, Malabe (February 2022)

Undergraduate Supervision

- Supervising the following Final year research projects of undergraduate students of Department of Biomedical Sciences, Faculty of Health Sciences, CINEC Campus (2023-2024)
 - “Isolation & Identification of Microorganisms In Commercially Available Edible Herbal Products In Western Province”, 2nd Batch-Department of Biomedical Sciences
 - “Comparative analysis of anti-oxidative, anti-inflammatory, and anti-microbial properties of the medicinal plants to treat common skin conditions in Sri Lanka” - 3rd Batch-Department of Biomedical Sciences
 - “Assessment of the wound healing properties of leaves extracts from *Andrographis paniculata*, *Celosia argentea* and *Wedelia trilobata*” -4th batch- Department of Biomedical Sciences
 - “Evaluation of anti-oxidative, anti-toxic, anti-inflammatory and anti-bacterial properties of plants in genera Eleusine of family Poaceae.” - 4th batch- Department of Biomedical Sciences
- Supervising the following mini research projects of undergraduate students of Department of Biomedical Sciences, Faculty of Health Sciences, CINEC Campus (2022-2024)
 - “HIV/AIDS-related knowledge, attitudes, and practices among university students in Western province in Sri Lanka.” - (2023 to date)-5th batch. Department of Biomedical Sciences

- “Awareness of symptoms, risk factors and perceptions of primary care in cancer among the youth of Sri Lanka”-(2022 to date)-3rd batch. Department of Biomedical Sciences

Research Interest

- Investigating the risk factors associated with the primary care of cancer disease conditions.
- Characterization of filaria and dirofilaria using molecular and microbiological techniques
- Identification and the statistical modelling of the disease transmission of Dengue, Filariasis, Chikungunya and other relevant vector borne diseases.
- Microbiological characterization of the pathogenic transmission of the flies in Sri Lankan setting.
- Cloning and expression of pharmaceutically valuable enzymes using bacteria.
- Medicinal Properties of herbal plants on various clinical applications.

Completed Research Projects

- Carrying out a postgraduate research project on “Forecasting and analysis of Dengue epidemics in district of Gampaha using statistical models”. Molecular Medicine Unit, Faculty of Medicine, Ragama- *Final Stage*
- Final year research projects of undergraduate students of Department of Biomedical Sciences, Faculty of Health Sciences, CINEC Campus. 1st Batch (2022-2023)
 - “Characterization of Entomological risk factors affecting transmission of parasites causing Rural (lymphatic) Filariasis in the District of Galle, Sri Lanka”.
 - “Molecular Characterization of Dirofilaria vector species in Sri Lanka.”
- Higher Diploma in Biomedical Sciences Final year research project, 1st batch (2022)
 - “Mosquito larvicidal effect of three endemic plant species; *Garcinia quaesia*, *Garcinia zeylanica* and *Coleus hadiensis* in Sri Lanka”
 - “Characterization of mechanically transmitted bacteria by thoracic legs of *Musca domestica*”

- Carried out an undergraduate research project on “Cloning and Expression of Beta-xylosidase gene of *Aspergillus niger* in *Escherichia coli*”. Faculty of Science, University of Colombo
- Dengue Awareness programmes conducted by Molecular Medicine Unit, Faculty of Medicine, Ragama.

Research Presentations

Paper Publications

- Randi Hathnagoda, Pinidi Gunathilake, Thilini Buddhinee, Pabasara Welgama, Hasini Gunarathna, **Harshani Perera**, Koshila Ranasinghe (2024) ‘Diversity and species composition of midgut symbiotic bacteria in *Culex quinquefasciatus* mosquitoes in Gampaha District, Sri Lanka’, *Journal of Tropical Medicine*, 2024(1). doi:10.1155/2024/1832200.
- H.A.K. Ranasinghe, **E.H.L. Perera**, G.C.A. Perera, J.D.A.S.M. Jayakodi, J.A.H. Madhumika, M.S. Ishara, M. Hettihewa, Marching towards bioeconomy: Larvicidal effect of three indigenous plant extracts from Sri Lanka—*Garcinia quaesita*, *Garcinia zeylanica*, and *Coleus hadiensis* on dengue vector *Aedes aegypti*, *Entomological Research*, 2024
- Aththanayaka, Melan & Beddewela, Lahiru & Dayananda, Thilina & Bandara, R. & Nawanjana, K. & Jayathunga, K. & Aadhila, M. & Pushpakumara, M. & **Perera, E.H.L** & Ranasinghe, H.A.K (2023). Antibacterial efficacy and phytochemical properties of the bark extract of *Connarus monocarpus* (Fam: Connaraceae). *Journal of Science of the University of Kelaniya*. 16. 95-103.10.4038/josuk.v16i2.8084.
- H. A. K. Ranasinghe, **E.H.L.Perera**, M. D. D. W. Mudalige, W. A. N. S. Perera, M. G. P. G. Hasangika, W. M. P. Prarthana, D. G. R. Diwyanjalee (2023) Detection of mechanically transmitted bacteria by *Musca domestica* (Diptera: Muscidae) in Malabe Medical Officer of Health (MOH) division, Sri Lanka, *Journal of Science of the University of Kelaniya*. Available at:<https://josuk.sljol.info/articles/10.4038/josuk.v16i2.8085>.

Abstract Presentations

- **Oral presentation**

DHN Devagiri, DPT Edirisinghe , IU Malalasekara, WAJ Dewmanthi, WMI Kalpani, **EHL Perera**. “Analysis Of Microbial Diversity in The Midgut of The *Mansonia Spp*. In Sri Lanka.” “Online World Multidisciplinary Conference on Recent Trends in Environmental Science and Management (WMCRTSM 2024)- R.T. Arts, B.H. Commerce and A.M. Science (KTHM) College, India (February, 2024)

DHN Devagiri, DPT Edirisinghe , IU Malalasekara, WAJ Dewmanthi, WMI Kalpani, **EHL Perera**, Molecular Characterization of *Brugia malayi* which Causes Rural (Lymphatic) Filariasis in Galle District, Sri Lanka. 2nd International Research Symposium on Multidisciplinary Approaches in Indigenous Knowledge Systems, Gampaha Wickramarachchi University of Indigenous Medicine, Sri Lanka (March, 2024)

G.C.A. Perera, J.D.A.S.M. Jayakodi, J.A.H. Madhumika, M.S. Ishara, H.A.K. Ranasinghe, **E.H.L Perera** and M. Hettihewa, "Larvicidal effect of three Indigenous plant extracts; *Garcinia quaesita*, *Garcinia zeylanica* and *Coleus hadiensis*, on dengue vector *Aedes aegypti*. 4th CINEC International research symposium, 2023-Pg 236

K.N.M. Wickramaratne, B.S.W.M.T.B. Dayananda, K.A.D. Krishantha, R.M.C.R. Rajapakshe, G.T.R. Silva, M.C. Ransarani, N.K. Gamage, H.A.K. Ranasinghe, **E.H.L. Perera**, "Exploring the Antibacterial activity of leaf, stem, and root extracts of *Exallage auricularia* (Gatekola/Eared-Leaf Diamond Flower)", 4th CINEC International research symposium, 2023-Pg 241

A.M.M.T Bandara Aththanayaka, B.G.L.K Beddewela, R.H.M.L.D Bandara, K.N Nawanjana, K.M.S.S Jayathunga, M.I.B Aadhila, M.A.D Pushpakumara, HAK Ranasinghe, **E.H.L Perera**, " Antibacterial efficacy and Phytochemical properties of bark extract of *Connarus monocarpus*(Radaliya/Indian Zebrawood", 4th CINEC International research symposium, 2023-Pg 240

DHN Devagiri, DPT Edirisinghe, IU Malalasekara, WAJ Dewmanthi, WMI Kalpani, **EHL Perera**, "Analysis of the Climatic Risk Factors Affecting Transmission of Parasites Causing Rural (Lymphatic) Filariasis in Galle District, Sri Lanka." 4th CINEC International research symposium, 2023-Pg 264

E.H.L. Perera , Y.I.N.S. Gunawardene ,M.D. Hapugoda, T. Ranathunge, L. Udayanga, "BLOOD MEAL PREFERENCES OF AEDES AEGYPTI (LINNAEUS) AND AE. ALBOPICTUS (SKUSE) IN THE DISTRICT OF COLOMBO". Sri Lanka Association for the Advancement of Science Proceedings of the 78th Annual Sessions – 2022. A/013

E.H.L. Perera, M.D. Hapugoda, S. Viswakula, S.M.C.U.P Subasinghe, L. Fernando "COMPARATIVE ANALYSIS OF POSSIBLE RISK FACTORS AFFECTING TRANSMISSION OF DENGUE IN THE DISTRICT OF GAMPAHA, SRI LANKA". Proceedings of the Open University Research Sessions (OURS 2021)-ID 47

E.H.L.Perera, S. Viswakula, Y.I.N.S. Gunawardene, U. Subasinghe, M.D. Hapugoda "ASSESSMENT OF POSSIBLE RISK FACTORS AFFECTING TRANSMISSION OF DENGUE IN THE DISTRICT OF GAMPAHA BASED ON REPORTED DENGUE CASES", The 20th International Postgraduate Research Conference organized by University of Kelaniya, 2019.

Perera, E.H.L., Gunawardene, Y.I.N.S. , Wisawakula, S. , Subasinghe, U., Fernando, L., Manamperi, A.and Hapugoda, M. ASSESSMENT OF THE DISTRIBUTION OF AEDES BREEDING SITES AT THE HOUSEHOLDS OF DISTRICT OF GAMPAHA. The International Postgraduate Research Conference organized by University of Kelaniya, 2022- IPRC/22/82

Perera, E.H.L., Gunawardene, Y.I.N.S, Hapugoda, M., Ranathunge, R.M.T.B, Udayanga, L.,

STUDY ON THE RESTING PREFERENCES OF *Aedes Aegypti* (LINNAEUS) AND *Ae. Albopictus* (SKUSE) ADULT MOSQUITOES IN THE DISTRICT OF COLOMBO, The International Postgraduate Research Conference organized by University of Kelaniya, 2022. IPRC/22/84.

- **Poster Presentation**

H.A.K. Ranasinghe, H.G.N.T. Rathnayaka, P.M.B.Pannila, D.V. Wickramarathne, N.S. Kudhoos, P.W.D. Kasurika and **E.H.L.Perera**, “Molecular based Identification of Dirofilariasis vector mosquitoes in Colombo and Gampaha districts in Sri Lanka”. 4th CINEC International research symposium, 2023-Pg 262

W.A.N.S. Perera, M.G.P.G. Hasangika, W.M.P. Prarthana, M.D.D.W. Mudalige, D.G.R. Divyanjali, H.A.K. Ranasinghe, **E.H. Perera** and M. Hettihewa, “Detection of mechanically transmitted bacteria by *Musca domestica* (Diptera: Muscidae)”, 4th CINEC International research symposium, 2023-Pg 261

HEMRTK Hathnagoda, PA Goonathilake, KAT Buddhinee, WDP Welgama , PKHN Gunarathna, HAK Ranasinghe, and **EHL Perera**, “Diversity of Culturable Aerobic Bacteria in the Midgut of Filariasis Vector, *Culex quinquefasciatus* Adults in Gampaha District, Sri Lanka”, 16th International Research Conference (September 7–8, 2023), Pg 17

HAK Ranasinghe, HGNT Rathnayaka, PMB Pannila, DV Wickramarathne, NS Kudhoos, PWD Kasurika, and **EHL Perera**, “Molecular Identification of Vector Mosquitoes of Dirofilariasis in Matale District, Sri Lanka”, 16th International Research Conference (September 7–8, 2023), Pg 18

Karunanayake, C., Azeera, F., Dilhari, M.M., Kukulage, D.S.K, **Perera E.H.L**, Chandrasekaran N.V, ‘CLONING OF ENDOXYLANASE 23(EXN23) GENE OF TRICHODERMA VIRENS USING FUSION PCR FOR EXPRESSION IN BACTERIAL SYSTEM’, Sri Lanka Association for the Advancement of Science Proceedings of the 72th Annual Sessions, 2016, (903/A poster)

Workshops

- Organized a one-day workshop on “Review and journal article writing” for the 1st batch undergraduate students during final year of their academic year targeting CIRS 2023.
- Participated in six-month course on Skill Development Programme for post-graduate students organized by Faculty of Graduate Studies, University of Kelaniya. (2018-2019)
- Participated to One Day Training Workshop on R software, organized by Department of Statistics & Computer Science, Faculty of Science. (2019).
- Participated and organized the One Day Training Workshop on Rapid Recombinase Polymerase Technique, organized by Molecular medicine unit, Faculty of Medicine, Ragama. (2019)
- Participated in Third International workshop of ‘Advanced Mosquito Entomology’ organized by Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka (2019).
- Participated in a Workshop on ‘Geo statistical Analyst Extension Using ArcGIS 10.2’ organized by Department of Zoology and Environment Management, Faculty of Science, University of Kelaniya, Sri Lanka (2018)
- Participated in a workshop of ‘Basics of Microscopic Tools and Maintenance Techniques’ organized by Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka (2018).
- Participated in a Refresher Training Programme organized by Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka (2018).
- Participated in Symposium on ‘Emerging viral infections’ organized by Faculty of Medical Sciences, University of Sri Jayawardenapura , SriLanka (2018).
- Participated in Second National Symposium on ‘Current Research Activities on Dengue’ organized by Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka (2017).
- Participated in an International workshop of ‘Advanced Mosquito Entomology’ organized by Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka (2017).
- Participated in a workshop on ‘How to improve quality of private sector HIV testing’ organized by North Colombo Teaching Hospital, Sri Lanka (2017)
- Participated in Training Program of Developing Leadership Qualities & Positive Thinking,

organized by Ministry of Higher Education. 05/2011- 06/2011.

National Services

- Organized and contributed to the Science Exhibition organized by Molecular Medicine Unit, Faculty of Medicine, Ragama at Udugampola Senerath Paranawithana School, Gampaha-2017, October.
- Actively contributed to the organizing committee of the Second National Symposium on 'Current Research Activities on Dengue' organized by Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka (2017).
- Contributed as a member of organizing committee of the international workshop of 'Advanced Mosquito Entomology' organized by Molecular Medicine Unit, Faculty of Medicine, University of Kelaniya, Sri Lanka (2017).

Memberships

- Member of Sri Lanka Association for the Advancement of Science (SLAAS) Membership number: 11635/A