

Prof. H.K.I. Perera

Full Name: Handunge Kumudu Irani Perera
Designation: Professor in Biochemistry and Head of the Department
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Academic and professional qualifications:

1. **B.V.Sc.** (1991), University of Peradeniya. Second class honours (Equivalent to upper class) with distinctions in Anatomy, Parasitology, Medicine and Animal Science.
2. **M.Phil.** in Biochemistry (1999), Faculty of Medicine, University of Peradeniya
Title: Isolation, purification and characterization of acid proteinases from porcine ovary.
3. **Ph.D.** in Biochemistry and Molecular Biology (2003), University of Glasgow, UK.
Title: Studies of post-Golgi syntaxins in trafficking of GLUT4 in 3T3-L1 adipocytes.
4. **Founder Fellow** of College of Veterinary Surgeons, Sri Lanka.
5. **Member** of College of Biochemists, Sri Lanka.

Awards

1. **Commonwealth Scholarships UK award** from 2000-2003.
2. **Commonwealth Fellowships UK award** from 01stOctober 2012 to 31stDecember 2012.
3. **Best presentation award.** Annual Research Sessions 1994, Faculty of Medicine, University of Peradeniya. Presenting author- H.K.I. Perera.
4. **Commendable paper award** Proceedings of 32nd academic Annual sessions of Kandy society of Medicine- 2010. Corresponding author- H.K.I. Perera.
5. **National Science Foundation Grant Award** (RG/2012/BS/01), July 2012 to December 2015. H.K.I. Perera (Principle Investigator).
6. **NRC Merit award for Scientific Publication-2015.** *BMC Complementary and Alternative Medicine.* 2015, Vol 15, Art No. 175.

Working experience

Professor in Biochemistry (Department of Biochemistry) from 28.11.2016 to date

Senior lecturer Grade I (Department of Biochemistry) from 2006 to 27.11.2016

Commonwealth Academic Fellow (University of Glasgow, UK) in 2012

Senior lecturer Grade II (Department of Biochemistry) from 1999 to 2006

Commonwealth Scholar (University of Glasgow, UK) from 2000 to 2003

Lecturer (Department of Biochemistry) from 1992-1999

Temporary Lecturer (Department of Biochemistry) from 1991 to 1992

Contributions as a visiting lecturer

1. Faculty of Dental Sciences- 2008, 2009, 2010, 2014, 2015, 2016
2. Faculty of Allied Health Sciences- 2007, 2008, 2009
3. Postgraduate Institute of Science- M.Sc. in Clinical Biochemistry Programme- from 2004 to date
4. Postgraduate Institute of Science- M.Sc. in Experimental Biotechnology programme- from 2004 to date

Contributions as a chief examiner or an examiner

1. Faculty of Medicine, University of Peradeniya- from 2003 onwards
2. Faculty of Dental Sciences, University of Peradeniya- 2008, 2009, 2010, 2014, 2015, 2016
3. Faculty of Allied Health Sciences, University of Peradeniya- 2007, 2008, 2009
4. Postgraduate Institute of Science- M.Sc. in Clinical Biochemistry Programme- from 2004 to date
5. Postgraduate Institute of Science- M.Sc. in Experimental Biotechnology programme- from 2004 to date
6. Faculty of Medicine and Allied Sciences, Rajarata University- 2008 and 2009
7. BSMS programme, Trincomalee Campus, Eastern University- 2016, 2017, 2018

Contributions in professional associations

1. Life member- Sri Lanka Association for the Advancement of Science
2. Life member -Sri Lanka Veterinary Association
3. Life member- Kandy Society of Medicine

4. Life member- Peradeniya Medical School Alumni Association (PeMSAA)
5. Treasurer-PeMSAA- 2014/2015, 2015/2016

Book chapters authored

1. **H.K.I. Perera**, Diversity of endocrine hormones. Chapter 28: Clinical Biochemistry for Medical Professionals Volume-2. International publisher- Paramount Publishing Enterprise-Pakistan. Accepted.
2. Biochemistry Made Easy. Publisher- S. Godage & Brothers (Pvt) Ltd. R. Sivakanesan (Editor) 2016. ISBN 978-955-30-6736-4.
(Six chapters)
 - 2.1 **H.K.I. Perera**, Chapter 6: Introduction to nucleic acids
 - 2.2 **H.K.I. Perera**, Chapter 7: Cell cycle
 - 2.3 **H.K.I. Perera**, Chapter 11: Energy for the cell- Glycolysis
 - 2.4 **H.K.I. Perera**, Chapter 12: Energy for the cell-Citric acid cycle
 - 2.5 **H.K.I. Perera**, Chapter 16: Pentose phosphate pathway
 - 2.6 **H.K.I. Perera**, Chapter 17: Free radicals and antioxidants
3. **H.K.I. Perera**, Detection of aspartic proteinase activities using gel zymography. Zymography: Methods and Protocols. Springer protocols. Publisher- Springer.

Monographs:

S.W. Gunasekera, R. Sivakanesan and **H.K.I. Perera** (1992). Bibliography of Research, Faculty of Medicine, Peradeniya.

List of publications

Full papers published in peer reviewed journals issued more than two issues/ year

1. **H.K.I. Perera**, M. Clarke, N.J. Morris, W. Hong, L.H. Chamberlain and G.W. Gould (2003). Syntaxin 6 regulates GLUT4 trafficking in 3T3-L1 adipocytes. *Molecular Biology of the Cell*. 14: 2946-2958. **Indexed in Science Citation Index Master list.**
2. D.B.G.M. Ekanayake, **H.K.I. Perera**, A.N.B. Ellepola and S.B.P. Athauda (2013). Analysis of blood parameters & RT-PCR results in dengue suspected patients from

Sri Lanka. *International Journal of Research in Medical and Health Sciences*. 3(1): 21-27.

http://ijsk.org/uploads/3/1/1/7/3117743/2_biochemistry.pdf.

3. D.C.R. Wijetunge and **H.K.I. Perera** (2014). A novel *in vitro* method to identify protein glycation inhibitors. *Asian Journal of Medical Science*. 5(3): 15-21. <http://dx.doi.org/10.3126/ajms.v5i3.8670>.
4. **H.K.I. Perera**, B.W.N.S.K. Abeywardana and S.B.P. Athauda (2014). Analysis of aspartic proteinase activity in porcine ovaries. *International Journal of Research in Medical and Health Sciences*. 3(7): 11-19. http://ijsk.org/uploads/3/1/1/7/3117743/2_aspartic_proteinase_activity.pdf.
5. **H.K.I. Perera** and H.A.S.K. Ranasinghe (2015). A simple method to detect plant based inhibitors of glycation induced protein cross-linking. *Asian Journal of Medical Science*. 6(1): 28-33. DOI: <http://dx.doi.org/10.3126/ajms.v6i1.10181>.
6. **H.K.I. Perera** and C.S. Handuwalage (2015). Detection of protein glycation inhibitory potential of nine antidiabetic plants using a novel method. *Asian Journal of Medical Science*. 6(2): 1-6. DOI: <http://dx.doi.org/10.3126/ajms.v6i2.10584>.
7. **H.K.I. Perera** and D.C.R. Wijetunge (2015). Strong protein glycation inhibitory potential of Clove and Coriander. *British Journal of Pharmaceutical Research*. 6 (5): 306-312. DOI : 10.9734/BJPR/2015/16190. **Indexed in ISI Master Journal list and Emerging Sources Citation Index.**
8. **H.K.I. Perera**, P.H.P. Fernando and S.B.P. Athauda (2015). Zymographic detection of aspartic proteinase activities in porcine ovarian extracts. *International Journal of Biochemistry Research & Review*. 7(4): 166-174. DOI: 10.9734/IJBcRR/2015/16236.
9. **H.K.I. Perera** and C.S. Handuwalage (2015). Analysis of glycation induced protein cross-linking inhibitory effects of some antidiabetic plants and spices. *BMC Complementary and Alternative Medicine*. 15: 175. 9 pages. DOI: 10.1186/s12906-015-0689-1. **Indexed in Science Citation Index Expanded.**
10. J. Poongunran, **H.K.I. Perera**, W. I. T. Fernando, L. Jayasinghe and R. Sivakanesan (2015). α -Glucosidase and α -amylase inhibitory activities of nine Sri Lankan antidiabetic plants. *British Journal of Pharmaceutical Research*. 7 (5): 365-374. DOI: 10.9734/BJPR/2015/18645. **Indexed in ISI Master Journal list and Emerging Sources Citation Index.**

11. **H.K.I. Perera** and W.K.V.K. Premadasa (2016). Heat stable inhibitors of protein cross-linking from Sri Lankan medicinal plants. *British Journal of Pharmaceutical Research*. 9(3): 1-11. DOI: 10.9734/BJPR/2016/21839. **Indexed in ISI Master Journal list and Emerging Sources Citation Index.**
12. **H.K.I. Perera**, W.K.V.K. Premadasa and J. Poongunran (2016). α -glucosidase and glycation inhibitory effects of *Costus speciosus* leaves. *BMC Complementary and Alternative Medicine*. 16:2. DOI 10.1186/s12906-015-0982-z. **Indexed in Science Citation Index Expanded.**
13. **H.K.I. Perera** (2016). Antidiabetic effects of *Pterocarpus marsupium* (*Gammalu*). *European Journal of Medicinal Plants*. 13(4): 1-14.
14. **H.K.I. Perera**, B.D.S. Jayawardana and S. Rajapakse (2016). Heat stable protease inhibitors from *Sesbania grandiflora* and *Terminalia catappa*. *British Journal of Pharmaceutical Research*. 11(4): 1-9. **Indexed in ISI Master Journal list and Emerging Sources Citation Index.**
15. **H.K.I. Perera** (2016). PAGE - a simple method to detect the protective effects of medicinal plants against sugar induced protein damage. *Journal of National Science Foundation Sri Lanka*. 44 (1): 105-107. **Indexed in Science Citation Index Expanded.**
16. **H.K.I. Perera** (2016). *Phyllanthus debilis*: A poorly investigated plant with antidiabetic effects. *International Journal of Pharma Sciences and Research*. 7(6): 261-265.
17. J. Poongunran, **H.K.I. Perera**, L. Jayasinghe, W.I.T. Fernando, R. Sivakanesan, Hiroshi Araya and Y. Fujimoto (2016). Bioassay-guided fractionation and identification of α -amylase inhibitors from the leaves of *Syzygium cumini*. *Pharmaceutical Biology*. 55(1): 206-211. **Indexed in Science Citation Index expanded.**
18. **H.K.I. Perera**, W.K.V.K. Premadasa, W.I.T. Fernando and J.A.V.P. Jayasinghe (2017). Assessment of antiglycation effects of some plants used in hypolipidaemic formulations or as spices. *Journal of Pharmaceutical Research International*. 17(3): 1-8. **Indexed in ISI Master Journal list and Emerging Sources Citation Index.**
19. **H.K.I. Perera**, Pradeep APC, Devinda KDU, Ratnayake RMUK and Gunawardhana DKLR (2017). Tyrosinase inhibitory effects of *Saraca asoca* bark,

leaf and seed. *Journal of Complementary Medicine and Alternative Healthcare* 4(3): 1-3.

20. **H.K.I. Perera**, Pradeep APC, Devinda KDU, Ratnayake RMUK, Gunawardhana DKLR and J.A.V.P. Jayasinghe (2018). Antityrosinase activities of *Thespesia populnea* bark and *Phyllanthus emblica* fruit. *Journal of Advances in Medical and Pharmaceutical Sciences*. 16(3): 1-8.
21. **H.K.I. Perera**, J. Poongunran, W.K.V.K. Premadasa, and J.A.V.P. Jayasinghe (2018). *In vitro* antiglycation and hypoglycaemic effects of *Syzygium cumini* leaf extracts. *Journal of National Science Foundation Sri Lanka*. 46 (3): 281 – 291.
Indexed in Science citation index expanded.
22. Irushika. T. Fernando, **Kumudu I. Perera**, Senarath B. P. Athauda, Ramiah Sivakanesan, Nimal Savitri Kumar and Lalith Jayasinghe (2018). Heat stability of the *in vitro* inhibitory effect of spices on lipase, amylase and glucosidase enzymes. *Food Science & Nutrition*. Accepted: 15 August 2018. **Indexed in Science citation index expanded.**

Full papers published in proceedings of National / International Conferences

1. **H.K.I. Perera**, S.B.P. Athauda and T. Takahashi (2009). Effect of ovarian aspartic proteinases in modulating IGFBP-3. *Proceedings of Peradeniya University Research Sessions*, 14-1: 111-113.
2. **H.K.I. Perera**, B.W.N.S.K. Abeywardana and S.B.P. Athauda (2009). Comparison of acid proteinases in porcine ovaries collected before and after attaining estrous cycling. *Proceedings of Peradeniya University Research Sessions*. 14-1: 157-159.
3. **H.K.I. Perera**, S.B.P. Athauda and T. Takahashi (2010). The variation of acid proteinase activity at different stages of the follicular and luteal phases of the porcine ovarian cycle. *Proceedings of Annual sessions of Peradeniya University Research Sessions*. 15-1: 380-382.
4. W.I.T. Fernando, **H.K.I. Perera**, S.B.P. Athauda, N.S. Kumar, U.L.B. Jayasinghe and R Sivakanesan (2010). *In-vitro* screening of spices for lipase inhibitory activity and antioxidant activity. *Proceedings of Annual sessions of Peradeniya University Research Sessions*. 15-1: 383-385.
5. A. Manamperi, **H.K.I. Perera**, H. Inoue and S.B.P. Athauda (2010). Screening of some medicinal plant extracts for antiparasitic activity using *Caenorhabditis*

elegans. *Proceedings of Annual sessions of Peradeniya University Research Sessions*. 15-1: 386-388.

6. U.V.R. Senaratne, **H.K.I. Perera**, A. Manamperi and S.B.P. Athauda (2012). Potential anthelmintic compounds from *Solanum indicum* fruit. *Proceedings of International Conference on chemical Sciences*. p26-29.
7. **H.K.I. Perera**, W. K. V. K. Premadasa and W.I.T. Fernando (2014). A strong glycation induced protein cross-linking inhibitory potential of *Cyperus rotundus* and *Picrorhiza kurroa*. *Proceedings of the fourth international seminar on sustainable utilization of tropical biomass- ayur informatics*. p69-74.

Published as abstracts in proceedings of National / International Conferences

1. **H.K.I. Perera**, S.W. Gunasekera, W.H.M. Pushpa Kumari and P.A.J. Perera (1992). Inborn errors of amino acid metabolism: A separation method and results. *Proceedings International medical congress, Kandy, Sri Lanka*. p28.
2. **H.K.I. Perera**, S.W. Gunasekera, P.C.A. Ratnatunga and R.O. Thattil (1994). Surgical nutrition: Anthropometric values reflecting the nutritional status of patients suffering from carcinoma of oesophagus and stomach. *Proceedings of Annual sessions of Kandy society of Medicine*. p34-35.
3. **H.K.I. Perera**, S.W. Gunasekera, A.S.B. Wijekoon and N.A.N.D. Perera (1994). Investigations of aminoacidopathies. A report. *Proceedings of Annual sessions of Kandy society of Medicine*. p35-36.
4. S.W. Gunasekera, **H.K.I. Perera**, P.C.A. Ratnatunga and R.O. Thattil (1994). Anthropometric and biochemical data reflecting the nutritional status of patients with carcinoma of the upper gastrointestinal tract. *Proceedings of Annual research sessions, Faculty of Medicine, University of Peradeniya*. p12-13.
5. **H.K.I. Perera**, S.B.P., Athauda, and T. Takahashi (1998). Isolation and partial characterization of acid proteinases from porcine ovaries. *Proceedings of Annual sessions of Sri Lanka Association for the Advancement of Science*. p26.
6. **H.K.I. Perera**, S.B.P. Athauda, and T. Takahashi (1998). Partial purification and characterization of acid proteinases from porcine ovaries. *Proceedings of Annual sessions of Sri Lanka Association for the Advancement of Science*. p21.
7. **H.K.I. Perera**, S.B.P. Athauda, P.H.P., Fernando, I.V.P. Dharmawardana, and T., Takahashi (1999). Characterization of two acid proteinases from porcine ovarian

- follicular fluid. *Proceedings of 28th Annual sessions of Chemistry in Sri Lanka*. 16(1): 42.
8. **H.K.I. Perera**, S.B.P. Athauda, and P.H.P. Fernando (1999). Isolation and purification of two acid proteinases from porcine ovarian tissues. *Proceedings of Peradeniya University Research Sessions*. p50.
 9. **H.K.I. Perera**, S.B.P. Athauda, P.H.P. Fernando and T. Takahashi (1999). Purification of two acid proteinases from porcine ovarian follicular fluid and their enzymatic properties. *Proceedings of Annual sessions of the Sri Lanka Association for the Advancement of Science*. p27.
 10. S.Martin, **H.K.I. Perera**, V.H. Maier, A. Prior, A.M. Shewan, G.W. Gould and D.E. James (2001). The emergence of an insulin-responsive glucose transport system during adipocyte differentiation correlates with the segregation of GLUT4 from recycling endosomes. In: *Molecular Biology of the Cell*.12:484A-484A.
 11. **H.K.I. Perera** and Gould G.W. (2003). Use of adenoviral vectors to deliver syntaxin DNA into 3T3-L1 adipocytes. *Proceedings of Peradeniya University Research Sessions*. p126.
 12. S.B.P. Athauda, A.P. Makawita, Y.M. Wijeratne Banda, **H.K.I. Perera**, N.R.K.B. Athauda (2007). Molecular detection and serotyping of dengue viruses by single tube multiplex reverse transcriptase genome specific polymerase chain reaction. *Proceedings of Annual sessions of Kandy society of Medicine*. p54.
 13. B.W.N.S.K. Abeywardana, **H.K.I. Perera** and S.B.P. Athauda (2009). Analysis of expression of acid proteinases in porcine ovaries of different sizes. *Proceedings of 38th Annual sessions of Chemistry in Sri Lanka*. 26(2): 24.
 14. B.W.N.S.K. Abeywardana, **H.K.I. Perera**, W.H.M. Pushpa Kumari and S.B.P. Athauda (2009). Analysis of acid proteinase activity in follicular fluid and corpus luteum of porcine ovaries. *Annual Scientific Sessions of the Sri Lanka Veterinary Association*. p45.
 15. B.W.N.S.K. Abeywardana, **H.K.I. Perera** and S.B.P. Athauda (2009). Acid proteinases activity changes at different stages of luteal phase of porcine ovary. *Proceedings of Annual sessions of the Sri Lanka Association for the Advancement of Science*. p15.
 16. **H.K.I. Perera** and D. Dissanayake (2010). Analysis of acid proteinase activity in early and late follicles of the ovary. *Proceedings of 32nd academic Annual sessions of Kandy society of Medicine*. p48.

17. T.N. Sudusinghe, D.D.K. Abeyaratne, W.A.N.T. Wickramarachchi, M.G.P.B. Maduranga, G.C.K. Amiyangoda, T. Choden, S. Sharmila, S.M.D. Sooriyarachchi, D.M.S. Chalithanga, **H.K.I. Perera** and S. Agampodi. (2010). Association between febrile convulsions and low birth weight of children and knowledge, attitudes and practices about febrile convulsions among their parents. *Proceedings of 32nd academic Annual sessions of Kandy society of Medicine*. p86. Presenter- T.N. Sudusinghe, (Corresponding author- H.K.I. Perera).
18. **H.K.I. Perera**, W.I.T. Fernando and R. Sivakanesan. (2011). Sri Lankan studies validating antidiabetic potential of medicinal plants. *International symposium on Natural Products and their Applications in Health and Agriculture (NAPAHA)*. p67.
19. W.I.T. Fernando, **H.K.I. Perera**, S.B.P. Athauda, N. S. Kumar, U.L.B. Jayasinghe and R. Sivakanesan (2011). Lipase & amylase inhibitory activity of spices. *International symposium on Natural Products and their Applications in Health and Agriculture (NAPAHA)*. p69.
20. W.I.T. Fernando, **H.K.I. Perera**, S.B.P. Athauda, N.S. Kumar, U.L.B. Jayasinghe and R. Sivakanesan (2011). Heat stability of the amylase and lipase inhibitors in methanol extracts of some spices. *Proceedings of Annual sessions of the Sri Lanka Association for the Advancement of Science*. p6.
21. U.V.R. Senaratne, **H.K.I. Perera**, A. Manamperi and S.B.P. Athauda (2011). Partial purification of anthelmintic compounds from *Solanum indicum*. *Annual sessions of Peradeniya University Research Sessions*.16: 78.
22. W.I.T. Fernando, B.M.S. Amarajeewa and **H.K.I. Perera** (2011). In-vitro inhibition of pancreatic lipase by the polyherbal formula “*lekhaneeya dashakaya*”. *Proceedings of Annual sessions of Peradeniya University Research Sessions*.16: 79.
23. D.B.G.M. Ekanayake, **H.K.I. Perera** and S.B.P. Athauda (2011). Analysis of blood parameters and RT-PCR results in dengue suspected patients from Kandy and Padaviya. *Proceedings of Annual sessions of Peradeniya University Research Sessions*.16: 80.
24. D.C.R Wijetunge, **H.K.I Perera** and A.M.P.S.T.M Bandara (2012). Gel Electrophoresis - A tool to analyze *in-vitro* protein glycation and inhibition. *Proceedings of Annual sessions of Peradeniya University Research Sessions*. p124.

25. B. Sivasothy, **H.K.I Perera** and W.I.T.Fernando (2012). Inhibitory effect on pancreatic amylase by medicinal plants collected from Jaffna Peninsula. *Proceedings of Annual sessions of Peradeniya University Research Sessions*. p125.
26. B.D.S. Jayawardana, **H.K.I Perera** and S. Rajapakse (2012). Protease inhibitory activity of some medicinal plants in Sri Lanka. *Proceedings of Annual sessions of Peradeniya University Research Sessions*. p126.
27. W.I.T. Fernando, **H.K.I. Perera**, S.B.P. Athauda, N.S. Kumar, U.L.B. Jayasinghe and R Sivakanesan. (2012). Bioactive compounds in *Trigonellafoenum- graecum* L. seeds with pancreatic amylase and lipase inhibitory activities. *Proceedings of Annual sessions of Peradeniya University Research Sessions*. p127.
28. **H.K.I. Perera**, P.H.P. Fernando and S.B.P. Athauda (2012). Analysis of porcine ovarian extracts for the presence of multiple aspartic proteinases. *Proceedings of Annual sessions of Peradeniya University Research Sessions*. p128.
29. D.C.R Wijetunge and **H.K.I Perera** (2013). Protein glycation inhibitory potential of some medicinal plants used to treat diabetes.Proceedings of international conference on bioactive phytochemicals and therapeutics (ICBPT-2013). Oral presentation abstracts. *International Journal of Nutrition, Pharmacology, Neurological Diseases*. 3(4): 431.
30. W.I.T. Fernando, **H.K.I. Perera**, S.B.P. Athauda, N.S. Kumar, U.L. B. Jayasinghe and R Sivakanesan. (2013). Hypoglycemic and hypolipidemic potential of some common spices. 14th Asian Symposium on medicinal plants, spices and other natural products. December 9-12, 2013, Karachchi, Pakistan.
31. W.V.V. De Silva, G.R.C. Silva, **H.K.I. Perera**, J. Kajendran, I. Rambukwella, R.D. Wijesinghe, P.H.P. Fernando, N. Perera, D.R.S. Adikaram and S.K. Ranaraja. (2014). The protease activity in fibroid tissue and adjacent myometrium. Book of abstracts, ISCOMS. p490. Netherland.
32. J. Poongunran, **H.K.I. Perera** and W.I.T. Fernando (2014). α - Amylase inhibitory activity of some plants with known antidiabetic effects. Proceedings of Jaffna Peninsula. Science Association 21th Annual Sessions (1, 2, 3 & 4). p47.
33. W.I.T. Fernando, **H.K.I. Perera**, A.M.K.C. Attanayake, N. S. Kumar, U. L. B. Jayasinghe and R Sivakanesan. (2014). Lipase inhibitory activity of *Trigonella foenum-graceum* seed extracts. Proceedings of *Annual sessions of the Sri Lanka Association for the Advancement of Science*.p3.

34. C. S. Handuwalage, H.K.I. **Perera**, M. C. N. Perera and A. M. P. S. T. M. Bandara (2014). Analysis of protein glycation inhibitory potential of some plants with hypoglycaemic effects using a novel method. *Proceedings of the Peradeniya University International Research Sessions, Sri Lanka*. 18: 241.
35. H.A.S.K. Ranasinghe, **H.K.I. Perera** and A. M. P. S. T. M. Bandara (2014). Development of a method to detect inhibitors of glycation induced protein cross-linking. *Proceedings of the Peradeniya University International Research Sessions, Sri Lanka*. 18: 251.
36. J. Poongunran, **H.K.I. Perera**, W.I.T. Fernando and C.S. Handuwalage (2014). α -glucosidase inhibitory activity of some plants with known antidiabetic effects. *Proceedings of the Peradeniya University International Research Sessions, Sri Lanka*. 18: 252.
37. S.L. De Silva, **H.K.I. Perera**, W.I.T. Fernando and M.C.N. Perera (2014). Partial purification of α - amylase inhibitor/s from *Syzygium cumini* leaves. *Proceedings of the Peradeniya University International Research Sessions, Sri Lanka*. 18: 253.
38. D. C. R Wijetunge and **H.K.I. Perera** (2014). The effect of some medicinal plant extracts on inhibition of HbA_{1c} formation *in vitro*. *Proceedings of the One Health International Conference*. p11.
39. S. L. De Silva, **H.K.I. Perera** and W. I. T. Fernando (2014). α -amylase and α -glucosidase inhibitory activities of *Costus speciosus* and *Syzygium cumini* leaves Proceedings of the *One Health International Conference*. p54.
40. D. C. R. Wijetunge and **H.K.I. Perera** (2014). Novel *in vitro* method reveals protein glycation inhibitory potential of some medicinal plants. *Proceedings of the Postgraduate Institute of Science Research Congress, Sri Lanka*. p62.
41. C.S. Handuwalage and **H.K.I. Perera** (2014). Glycation induced protein cross-linking inhibitory effects of some antidiabetic plants. *Proceedings of the Postgraduate Institute of Science Research Congress, Sri Lanka*. p67.
42. J. Poongunran, **H.K.I. Perera** and W.I.T. Fernando (2015) α -Glucosidase inhibitory activity of *Syzygium cumini* leaf extracts. *Proceedings of the Peradeniya University International Research Sessions, Sri Lanka*. 19: 249.
43. D.M. Gunathilaka, M.C.N Perera, S. J. Weihena, **H.K.I Perera** and W.M.A.P Wanigasekera (2016). Antioxidant activity and cyanide content of leaves of three different cassava varieties (*Manihot esculenta crantz*). *Proceedings of the Peradeniya University International Research Sessions, Sri Lanka*. 20: 97.

44. W. I. T. Fernando, L. Jayasinghe, H. Araya, Y. Fujimoto, A. M. K. C. Attanayake, **H. K. I. Perera** and R. Sivakanesan (2016). Isolation and identification of lipase inhibitors from *Trigonella foenum-graecum* seeds. *Proceedings of the Peradeniya University International Research Sessions, Sri Lanka*. 20: 352
45. O. Dheeraseskera and **H. K. I. Perera** (2017). *Saraca asoca* as a potential inhibitor of glycation and glycation induced cross-linking. *Proceedings of International Symposium on Traditional and Complementary Medicine*. p123.
46. C. Gunawardana, R. Sivakanesan, **H.K.I. Perera** (2017). Antioxidant activity of selected Sri Lankan medicinal plants and their stability during storage at room temperature. *Proceedings of the Peradeniya University International Research Sessions, Sri Lanka*. 21:
47. O. Dheeraseskera and **H. K. I. Perera** (2018). Antiglycation effects of *Thespesia populnea* and *Santalum album*. *Proceedings of ANRAPSL1-“Herbal approaches in combating Diabetes and common tropical diseases*. p48.
48. W.I.T. Fernando, **H.K.I. Perera**, R. Sivakanesan, L. Jayasinghe, H. Araya and Y. Fujimoto (2018). Potential lipase inhibitors from *Trigonella foenum-graecum* seeds. *Proceedings of ANRAPSL1-“Herbal approaches in combating Diabetes and common tropical diseases*. NIFS, Kandy, Sri Lanka, 17-19th January 2018, p53.
49. J. Poongunran, **H.K.I. Perera**, L. Jayasinghe, W.I.T. Fernando, R. Sivakanesan, H. Araya and Y. Fujimoto (2018). Isolation and identification of α -amylase inhibitors from *Syzygium cumini* leaves. *Proceedings of ANRAPSL1-“Herbal approaches in combating Diabetes and common tropical diseases*. p55.
50. O. Dheeraseskera, **H.K.I. Perera** and A.M.P.S.T.M. Bandara (2018). *Terminalia arjuna* attenuates glycation and glycation induced cross-linking; An in vitro study. *Proceedings of 5th International Science and Technology Conference, University of Ruhuna*.
51. H.M.D.C Herath, W.I.T Fernando, **H.K.I. Perera**, L. Jayasinghe (2018). Digestive enzyme inhibitory activities and anti-glycation properties of *Myristica fragrans* (nutmeg) seed extracts. *Chemistry in Sri Lanka*. 35(2): 23.
52. In-vitro screening of antioxidant and antiglycation potential of *Solanum nigrum*.
53. J.A.V.R. Jayasinghe, **H.K.I. Perera**, S.I. Singhatilaka, T.M.K.B.B. Weerapperuma (2018). Protective Effects of *Terminalia arjuna* water extracts against diabetic complications through glycation inhibition. 6th International Conference on Ayurveda, Unani, Siddha and Traditional Medicine.

Research news articles

1. **H.K.I. Perera** (2015). Medicinal plants as protein cross-linking inhibitors to reduce complications of diabetes. Hantana vision, Research magazine of the University of Peradeniya. 1(2): 18.
2. **H.K.I. Perera** (2015). SDS-PAGE-A simple method to identify medicinal plants which can delay diabetic complications. Sri Lankan Scientist Magazine 1(2): 5-6.
3. **H.K.I. Perera** (2016). The truth behind *Thebu* leaves in a diabetic diet. Hantana vision, Research magazine of the University of Peradeniya. 2(2): 16.
4. **H.K.I. Perera** (2016). *Gammalu* latex: A poorly investigated remedy used for diabetes. Sri Lankan Scientist Magazine. 2(1): 6

Supervision of postgraduate students

1. Supervisor of Ph.D. (Degrees awarded)

- 1.1 Supervisor of Dr. W.I.T. Fernando-. Ph.D. in Biochemistry and Molecular Biology.-2016. Title: Inhibitors of digestive enzymes from some medicinal plants and the isolation and identification of lipase inhibitors from *Trigonella foenum-graecum*". Supervision contribution: 40%- Awarded the degree in 2016.

2. Supervisor of M.Phil. (Degrees awarded)

- 2.1 M.Phil. in Biochemistry & Molecular Biology- D.C.R. Wijetunge (PGIS/BM/M.Phil/12/466). Title: Development of a new strategy to detect protein glycation and assessment of protein glycation inhibitory potential of medicinal plants.
Only supervisor- - Supervision contribution: 100%. Awarded the degree in 2014.

3. Supervisor of M.Phil projects (ongoing)

- 3.2 M.Phil. in Biochemistry & Molecular Biology- Jeyakumaran Poongunran (PGIS/BM/ M.Phil./13/588)
Title: Identification and isolation of potential antidiabetic compounds from Sri Lankan medicinal plants.
Principle supervisor- Supervision contribution: 70%. Bench work is over
- 3.3 M.Phil. in Biochemistry & Molecular Biology- W.A.C.U. Gunawardana (PGIS/BM/ M.Phil./15/565)

Title: A study on antioxidant and protein oxidation inhibitory potential of selected antidibetic medicinal plants.

Co-supervisor

4. Supervisor of M.Sc. (Degrees awarded)

4.1. M.Sc. in Clinical Biochemistry- M.M.M. Shafras

(PGIS/BM/M.Sc./CLB/16/08)

Title: Comparison of glycemic control and anthropometric parameters before and after Ramadan fasting in a selected cohort of patients with type 2 diabetes mellitus in Sri Lanka.

4.2. M.Sc. in Clinical Biochemistry- C.S. Handuwalage.

(PGIS/BM/M.Sc./CLB/11/10)

Title: Protein Glycation Inhibitory Potential of Plants with Anti Diabetic Effects,
Only supervisor - Supervision contribution: 100%. Awarded the degree in 2016.

4.2. M.Sc. in Clinical Biochemistry- H.A.S.K. Ranasinghe

(PGIS/BM/M.Sc./CLB/08/08)

Title: Development of two methods to detect inhibitors of protein glycation at different stages.

Only supervisor - Supervision contribution: 100%. Awarded the degree in 2014.

4.3. M.Sc. in Clinical Biochemistry- S.L. De Silva

(PGIS/BM/M.Sc./CLB/08/04)

Title: Partial purification of and α -amylase inhibitor from *Syzygium cumini*.

Principle supervisor- Supervision contribution: 80%. Awarded the degree in 2013.

4.4. M.Sc. in Clinical Biochemistry- B.D.S. Jayawardena

(PGIS/BM/M.Sc./CLB/09/02)

Title: Protease inhibitory activity of some medicinal plants in Sri Lanka.

Principle supervisor- Supervision contribution: 80%. Awarded the degree in 2012.

4.5. M.Sc. in Clinical Biochemistry- D.B.G.M. Ekanayake

(PGIS/BM/M.Sc./CLB/06/53)

Title: Analysis of samples of clinically suspected dengue patients using RT-PCR and other blood parameters.

Principle supervisor - Supervision contribution: 60%. Awarded the degree- 2012

4.6. M.Sc. in Experimental Biotechnology- A.S. Manamperi

(PGIS/BM/M.Sc./EBT/08/11)

Title: Screening, isolation and purification of potential antiparasitic compounds from medicinal plants.

Principle supervisor- Supervision contribution: 60%. Awarded the degree in 2011.

4.7. M.Sc. in Analytical Chemistry- B.W.N.S.K. Abeywardana.

Title: Characterization of acid proteinases and analysis of their expression in porcine ovaries

Principle supervisor- Supervision contribution: 80%. Awarded the degree in 2009.

4.8 M.Sc. in Biotechnology- M.A.P. Makawita 2006.

Title: "Rapid detection and typing of Dengue viruses in Sri Lanka".

Co-supervisor, Awarded the degree in 2006.

Supervision of undergraduates

1. A hospital-based study to determine the association between febrile convulsions and low birth weight among 6 months to 6 years age group and to assess the knowledge, attitudes and practices of parents of children with febrile convulsions
Medical undergraduates-Group 10 2004/05 Batch
2. Knowledge of contraceptives among undergraduates
Medical undergraduates-Group 13 2005/ 06 Batch
3. Knowledge, attitude and practice towards smoking and alcohol consumption among males with age group 17-21
Medical undergraduates-Group 17 2005/ 06 Batch
4. Analysis of activity of acid proteinases in follicular fluid of porcine ovaries
M.A.U. Watsala (Veterinary student) VS/03/104 September 2009
5. Antiparasitic compounds from *Solanum indicum*
U.V.R. Senaratne (student from Institute of Chemistry, Ceylon)
6. *In-vitro* screening of antidiabetic and antiglycation potential of *Solanum nigrum*.
S.T. Pabasara AHS/12/PCY/016 February 2018.

Research grants taken and completed as the principle investigator

1. Detection of skin whitening effects of medicinal plants (Rs. 562,500/-). University Research Grant No. RG/2016/41/M.
2. Identification and isolation of potential antidiabetic compounds from Sri Lankan medicinal plants. (Rs. 1,580,000/-). Co investigators- Prof. U.L.B. Jayasinghe and

Prof. R. Sivakanesan. National Science Foundation. Grant No. RG/2012/BS/01 on 2012 to 2015.

3. Detection of *in vitro* early and late protein glycation inhibitory potential of Sri Lankan medicinal plants. (Rs. 600,000/-). University Research Grant No. RG/AF 2013/33/M.
4. Development of an assay to detect protein glycation inhibitory potential of medicinal plants (Rs. 185,097/). University Research Grant No. RG/2012/CG-1/38/M, 2012 to 2013.
5. Preliminary studies on detection of protein glycation inhibitory potential of medicinal plants. (Rs. 74,090/-). University Research Grant No. RG/2011/27/M, 2011 to 2013.
6. Studies on the variation of acid proteinase activity during the porcine ovarian cycle. (Rs. 80,000/-). Co-investigators- S.B.P. Athauda and T. Takahashi. University Research Grant No. RG/2009/43/M, 2010 to 2011.
7. Studies on the effect of novel aspartic proteinases in modulating the IGF1P concentration (Rs. 63,308/-) University Research grants Grant No. RG/2008/42/M, 2008 to 2009. Co-investigators- S.B.P. Athauda and T. Takahashi.
8. Isolation, purification and characterization of acid proteinases from porcine ovaries. (Rs. 100,000/-) University Research grants Grant No. RG/99/62/PG/M, 1999 to 2000. Co-investigators- S.B.P. Athauda and T. Takahashi.

Research grants taken for ongoing projects as the principle investigator

Assessment of heat stability of glycation induced cross-linking inhibition of three medicinal plants and their effects on cell viability. (Rs. 400,000/-). University Research grants Grant No. URG/2018/32/M, 2018 to 2019.

Research Collaboration with University of Glasgow, UK

A research project was conducted under the Commonwealth Fellowship in 2012 in University of Glasgow, UK in collaboration with Prof. Gwyn Gould. A project was conducted to study the effect of Sri Lankan medicinal plants on glucose uptake by adipocyte cells.

Research Collaboration with National Institute of Fundamental Studies

A project on antidiabetic effects of *Syzygium cumini* leaves was completed in collaboration with Prof. Lalith Jayasinghe.

Contributions to the Faculty

Curriculum development and implementation- “Beyond 2004 curriculum for medical degrees”

1. **Member** of planning and implementation committee “Y” from 2004- 2009
2. **Convener** of planning and implementation committee “Y” from 2005-2009
3. **Vice Chairperson** of the Curriculum Coordinating Centre from 2006- 2009
4. **Course director** - to develop the outline of the curriculum for year 1-4 in the Growth, Development and Nutrition module -2006
5. **Member** of curriculum coordinating committee from 2004 to 2010
6. **Member** of curriculum development committee from 2005 to 2006
7. **Module coordinator**
 - 7.1 Alimentation Module- 2005 & 2006
 - 7.2 Foundation Module- from 2007 to 2015
8. **Coordinator** of the Curriculum revision of the Foundation Module-2013

Contributions to Faculty research development

1. **Secretary** of Faculty Higher Degrees Committee January 2018 to date
2. **Member** of Faculty Research committee 2010 to date
3. **Secretary** of the Faculty Research Committee 2010 to 2013
4. **Organizing committee member-** research workshops
5. **Reviewer** of research grant proposals, final reports, abstracts

Contributions to student welfare

1. **Academic counselor-** 2013, 2014, 2015, 2016
2. **Student mentor** Faculty of Medicine- 2005, 2008, 2009
3. **Member** of Faculty Student Affairs committee
4. **Member** of Scholarship committee

Other contributions

1. **Member** of Faculty Library committee 2010 to date
2. **Member** Exhibition of Art and Books Committee- Golden Jubilee Celebrations- Faculty of Medicine 2012
3. **Member** of the executive organizing committee-Medical Exhibition Committee- 2015
4. **Chairperson** of the Food committee- Medical Exhibition Committee- 2015
5. **Chairperson** of the Theme on Nutrition - Medical Exhibition- 2003

Contributions in Peradeniya Faculty of Medicine Teachers Association (PFMTA)

1. Treasurer PFMTA- 2013/14
2. Treasurer PFMTA- 2014/15
3. Assistant Secretary PFMTA 2012/2013
4. Vice President PFMTA 2011/2012

Contributions to the University

Senior Student Counselor- 2006, 2008, 2010

Representative for Dean/ Medicine- Senate Library Committee - 2010, 2011, 2012

Contributed for Peradeniya University Research Session

Member of Registration Committee- 2007, 2008

Member of Editorial committee- 2009, 2010- extended abstracts were published during these years.

Member of Organizing Committee- 2011

Member of Organizing Committee- 2012. Hosted by the Faculty of Medicine

Reviewer- abstracts extended abstracts- 2009 and 2010

Reviewer- abstracts- 2011 and 2012

Contributed for Peradeniya University International Research Session

Member of iPURSE Organizing Committee- 2014

Member of Editorial committee of iPURSE- 2016

Member of Technical Programme committee of iPURSE- 2017

Reviewer- abstracts- 2014, 2015 and 2016- iPURSE

Reviewer- abstracts- 2015- PGIS Research congress

Contributed for Peradeniya University Convocation

Member of Organizing committee- Convocation 2016

Member of Organizing committee- Convocation 2015

Member of Logistic committee- Convocation 2015

Member of Food committee- Convocation 2014

Contribution as a resource person in Workshops and Short Courses

1. Resource person- Medical Laboratory Technology course at the School of Medical Laboratory Technology at Teaching Hospital Peradeniya
2. Resource person- Certificate Course in Advance Biochemistry 2005
3. Resource person- Course in Basic Sciences for MD Part I in Gynaecology and Obstetrics 2011
4. Resource person- Course in Basic Sciences for MD Part I in Gynaecology and Obstetrics 2012
5. Resource person- Course in Basic Sciences for MD Part I in Gynaecology and Obstetrics 2013
6. Resource person- Course in Basic Sciences for MD Part I in Gynaecology and Obstetrics 2014
7. Resource person- Preparative Course for selection examination in MD (Oral surgery/ Orthodontics/ Restorative Dentistry- 2014)
8. Resource person- Preparative Course for selection examination in MD (Oral surgery/ Orthodontics/ Restorative Dentistry-2015)
9. Resource person- Biochemistry Practical workshop 2015
10. Resource person- Revision of Biochemistry curriculum for the Curriculum Revision Workshop 2016

National level contributions

1. **Coordinator-** M.Sc. in Exercise and Sports Science, Faculty of Medicine, from January 2015 to date
2. **Coordinator-** M.Sc. in Clinical Biochemistry PGIS from 2010 to date

3. **Member** at the stakeholder meeting to discuss the five year Corporate Plan (2012 to 2017) of the National Science Foundation in 2012 as the representative to the Dean.
4. **Reviewer-** Research grant proposals- National Science Foundation
5. **Reviewer-** Young Scientists Forum organized by the National Science and technology Commission (NASTEC)
6. **Steering committee member** of Workshop on Disaster management
7. **Steering committee member** of Workshop on Road Traffic Accidents

Contributions as an editorial board member/ scientific advisory board member/ reviewer for international peer reviewed journals, national journals and indexed journals

1. Editorial Board & Reviewer- since 2011-to date

Asian Journal of Medical Sciences

Published 6 issues per year

2. Reviewer- since 2014-to date

Analytical Chemistry

Published 24 issues per year

3. Reviewer- since 2015-to date

Critical Reviews in Food Science and Nutrition

Published 16 issues per year

4. Reviewer- since 2015-to date

Journal of Intercultural Ethnopharmacology

Published 4 issues per year

5. Reviewer- since 2015-to date

Pharmaceutical Biology

Published 12 issues per year

6. Member- Scientific advisory board & Reviewer

- since 2015-to date

International Journal of Surgery and Medicine

Published 2 issues per year

7. Reviewer-2015

Sri Lanka Dental Journal

Published 2 issues per year