

Curriculum vitae of Theshini Perera

Department of Chemistry
Faculty of Applied Sciences
University of Sri Jayewardenepura

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Academic Qualifications

- 2006-2010:** PhD, Louisiana State University, USA
Advisor: Prof. Luigi G. Marzilli
Dissertation Title: *"Chemistry of fac-Re(CO)₃ Complexes of Biomedical Relevance"*
GPA: 4.0
- 2000-2004:** B.Sc. (Honors) second class upper division in Chemistry, University of Colombo, Sri Lanka
Advisor: Dr. Rohini M. de Silva
Thesis Title: *"Synthesis and Characterization of Organometallic Complexes Containing Metal-carbon Bonds"*

Research Interests

Synthesis of novel metal-based therapeutics to curb cancer
Development of non-invasive, convenient and sub cellular level detection probes for the diagnosis of cancer
Synthesis of organic ligands and inorganic complexes (Re, Pt, Zn, Cu and Ru) of biomedical relevance;
Applications of 1D and 2D NMR and other spectroscopic methods to characterize the structure and properties of metal complexes

Teaching Experience

November 2019 to date: **Professor in Chemistry**, Department of Chemistry, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka

CHE 110 1.0 – Concepts in Inorganic Chemistry I
CHE 211 1.0 – Concepts in Inorganic Chemistry II
CHE 368 1.0 – Bioinorganic Chemistry
CHE 352 1.0 – Spectroscopic Methods in Inorganic Chemistry
CHE 363 1.0 – Organotransition Metal Chemistry
ICH 362 1.0 – Inorganic Chemistry for Industry – Catalysts and Catalyst Design
ICH 365 1.0 – Spectroscopic Methods, Instrumentation and Applications III
APS 411 2.0 – Biological Sensors and Imaging
CHE 107 2.0 – Inorganic Chemistry Laboratory Course for first year undergraduates

April 2017 to date: **Senior Lecturer I**, Department of Chemistry, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka

CHE 368 1.0 – Bioinorganic Chemistry

CHE 352 1.0 – Spectroscopic Methods in Inorganic Chemistry
ICH 362 1.0 – Inorganic Chemistry for Industry – Catalysts and Catalyst Design
ICH 365 1.0 – Spectroscopic Methods, Instrumentation and Applications III
APS 411 2.0 – Biological Sensors and Imaging
PST 360 2.0 – Inorganic Spectroscopy Component
CHE 107 2.0 – Inorganic Chemistry Laboratory Course for first year undergraduates

April 2011 to April 2017: **Senior Lecturer II**, Department of Chemistry, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka

CHE 103 1.0 – Chemical Thermodynamics
CHE 368 1.0 – Bioinorganic Chemistry
CHE 352 1.0 – Spectroscopic Methods in Inorganic Chemistry
APS 411 2.0 – Biological Sensors and Imaging
CHE 107 2.0 – Inorganic Chemistry Laboratory Course for first year undergraduates

February 2011 to April 2011: **Lecturer**, Department of Chemistry, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka

August 2010 to Feb 2011: **Probationary Lecturer**, Department of Chemistry, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka

CHE 368 1.0 – Bioinorganic Chemistry to 3rd year special degree students
CHE 352 1.0 – Spectroscopic Methods in Inorganic Chemistry
CHE 103 1.0 – Chemical Thermodynamics
CHE 107 2.0 – Inorganic Chemistry Laboratory Course for first year undergraduates
CHE 209 2.0 – Physical Chemistry Laboratory Course for second year undergraduates
CHE 374 2.0 – Inorganic Chemistry Laboratory Course for special degree undergraduates

Aug 2006 to Aug 2010: **Teaching Assistant**, Department of Chemistry, Louisiana State University, Baton Rouge, LA 70803

CHEM 4570 – Advanced General Inorganic Chemistry
CHEM 1212 – General Chemistry Lab
CHEM 1431 – Honors, General Chemistry Lab

Feb 2005 to Aug 2006: **Temporary/Probationary Lecturer**, Department of Chemistry, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka

Conducted undergraduate laboratory sessions in inorganic chemistry
Lectures in Coordination Chemistry to 2nd year undergraduates

Mar 2004 to Sep 2004: **Teaching Assistant**, Department of Chemistry, Faculty of Science, University of Colombo, Sri Lanka

Practical sessions in inorganic chemistry for 2nd year undergraduate students
Tutorials for first and second year undergraduate students in chemistry

Publications

Kaluthanthri, D; Rajagopalan, U.; Fronczek, F.R; Samarakoon, S.R.; Weerasinghe L; Perera, I.C.; **Perera, T**; "Synthesis and characterization of sulfonamide appended rigid phenyl-based and non-rigid 1,4-benzodioxan-based ring systems and their Pt (II) complexes towards potential therapeutic targets", Polyhedron 255 (2024) 117131 (doi.org/10.1016/j.poly.2024.117131) (IF = 2.4)

Kaluthanthri, D; **Perera, T**; Fronczek, F.R; "Synthesis, spectroscopic analysis and crystal structure of (N-{2-[(2-aminoethyl)amino]ethyl}-4_-methyl-[1,1_-biphenyl]-4-sulfonamidato)tricarbonylrhenium(I), Acta Cryst. (2024). E80, 742–745 (IF = 0.9)

Maladeniya, C; Darshani, Taniya; Samarakoon, S.S.; Fronczek, F.R.; Sameera, W.M.C.; Perera I C; **Perera, Theshini**, "Biological Evaluation of Platinum(II) Sulfonamido Complexes: Synthesis, Characterization, Cytotoxicity and Biological Imaging" Bioinorganic Chemistry and Applications 2022 (IF = 4.7)

K.V.N.N. Vitharana, C. Kaushalya, **N.T. Perera**, W,M.C. Saneera, A. Cooray, S.P. Deraniyagala, "Dipicolylamine-based Fluorescence Probes and Their Potential for the Quantification of Fe³⁺ in Aqueous Solutions" ACS Omega 2022 (IF = 4.1)

Mauran, S.; **Perera, N.T.**; Perera, I.C. "MxyR of Mycobacterium tuberculosis responds to xylan; an unusual ligand for a MarR family transcriptional regulator" Molecular Biology, 2021, 56 (1) (IF = 1.5)

Thushara, Nadini; Darshani, T.; Samarakoon, SR; Perera, IC; Fronczek, Frank R; Sameera, WMC.; **Perera, Theshini** "Synthesis, Characterization and Biological Evaluation of Dipicolylamine Sulfonamide Derivatized Platinum Complexes as Potential Anticancer Agents" RSC Advances 2021 (IF = 3.9)

Darshani, Taniya; Fronczek, Frank R.; Priyadarshani, V V; Samarakoon, S; Perera, IC; **Perera, Theshini**. "Synthesis and Characterization of Novel Naphthalene-derivatized Tridentate Ligands and their Net Neutral Rhenium Tricarbonyl Complexes as Potential Therapeutic Agents for Lung Cancer" Polyhedron 2020 (IF = 2.4)

Darshani, Taniya; Thushara, Nadini; Weerasuriya, Piyumali; Fronczek, Frank R.; Perera, IC; **Perera, Theshini**. "Fluorescent di-(2-picoyl) amine based drug-like ligands and their Re (CO)₃ complexes towards biological applications" Polyhedron 2020 (IF = 2.4)

Darshani, Taniya; Weldegiorghis, Thomas, K.; Fronczek, Frank R.; Perera, Theshini. The first structurally characterized sulfonamide derivatized Zn (II)-dipicolylamine complexes with eight membered chelate rings. Synthetic and structural studies, Journal of Molecular Structure 2020 (IF = 4.0)

Katugampala, S; Nanayakkara, C; Perera I C; **Perera, T** "Synthesis, Characterization and Antimicrobial Activity of Novel Copper - triazine Complexes" Bioinorganic Chemistry and Applications, 2018 (IF = 4.7)

Abeydeera, N; Perera I C; **Perera, T** "Synthesis, Characterization and BSA Binding Studies of Novel Zinc - triazine Complexes" Bioinorganic Chemistry and Applications, 2018 (IF = 4.7)

Subasinghe, Amali; Perera I C; **Perera, Theshini**, "Synthesis, Characterization, and Biological Studies of a PiperidinyI Appended Dipicolylamine Ligand and Its Rhenium Tricarbonyl Complex as Potential Therapeutic Agents for Human Breast Cancer"; Bioinorganic Chemistry and Applications, 2016 (IF = 4.7)

Ranasinghe, P V H K; Perera I C; Handunetti, S; **Perera, Theshini**, "Synthesis and Characterization of Novel Rhenium(I) Complexes towards Potential Biological Imaging Applications"; Chemistry Central Journal (renamed BioMed Central), 2016, 10:71 (IF = 4.3)

Perera, Theshini; Abhayawardhana, Pramuditha; Marzilli, Patricia A; Fronczek, Frank R.; Marzilli, Luigi G. "Formation of a Metal-to-Nitrogen Bond of Normal Length by a Neutral Sufonamide Group within a Tridentate Ligand. A New Approach to Radiopharmaceutical Bioconjugation"; Inorganic Chemistry, 2013,52, 2412-2421 (IF = 4.3)

Perera, Theshini; Abhayawardhana, Pramuditha; Fronczek, Frank R.; Marzilli, Patricia A; Marzilli, Luigi G. "Iminoether Complexes of the Type, *fac*-[Re(CO)₃(L)(HNC(CH₃)OCH₃)]BF₄ (L = Bipyridine and Substituted Bipyridine): Synthesis and Properties"; European Journal of Inorganic Chemistry 2012, 618-627) (IF = 2.3)

Abhayawardhana, Pramuditha; Marzilli, Patricia A; **Perera, Theshini**; Fronczek, Frank R.; Marzilli, Luigi G. "New Monodentate Amidine Superbasic Ligands with a Single Configuration in *fac*-[Re(CO)₃(5,5'- or 6,6'-Me₂bipyridine)(amidine)]BF₄ Complexes"; Inorganic Chemistry, 2012, 51, 7271–7283 (IF = 4.3)

Perera, Theshini; Fronczek, Frank R.; Watkins, S. "2,9,16,23-Tetrakis(1-methylethyl)-5,6,11,12,13,14,19,20,25,26,27,28-dodecadehydrotetrabenzo[*a,e,k,o*]cycloeicosene"; Acta Crystallographica Sec E Struct Rep Online. 2011, 67, 3493. (IF = 0.9)

Perera, Theshini; Marzilli, Patricia A; Fronczek, Frank R.; Marzilli, Luigi G. "Several Novel N-Donor Tridentate Ligands Formed by Attack of a Terminal Amine on Coordinated Acetonitrile. Synthetic, NMR Spectral, and X-ray Crystallographic Studies of *fac*-Re(CO)₃ Complexes"; Inorganic Chemistry 2010, 49, 2123-2131 (IF = 4.3)

Perera, Theshini; Marzilli, Patricia A; Fronczek, Frank R.; Marzilli, Luigi G. "NH NMR Shifts of New, Structurally Characterized *fac*-[Re(CO)₃(polyamine)]ⁿ⁺ Complexes Probed via Outer Sphere H-Bonding Interactions to Anions, Including the Paramagnetic [Re(IV)Br₆]²⁻ Anion"; Inorganic Chemistry 2010, 49, 5560-5572 (IF = 4.3)

Perera, Theshini; Fronczek, Frank R.; Marzilli, Patricia A; Marzilli, Luigi G. "Superbasic Amidine Monodentate Ligands in *fac*-[Re(CO)₃(5,5'-Me₂bipy)(Amidine)]BF₄ Complexes: Dependence of Amidine Configuration on the Remote Nitrogen Substituents"; Inorganic Chemistry (Inorganic Chemistry 2010, 49, 7035-7045) (IF = 4.3)

Patents

Theshini Perera, Chiranthi Kaushalya and Taniya Darshani; Novel ligands and metal chelates as anticancer agents and diagnostic agents, process of making such and uses thereof (Nation Patent LK/P/20765)

Theshini Perera, Nilwala Kottegoda, Inoka C Perera, M N Kaumal, Madhavi de Silva and Krishani Wijesundara; Industrial design for the “Punchi Vidyagnayo” (Little Scientist) science kit – approval pending - National ID LK/1/12948

Manuscripts under Review

Wattevidana, A; Perera, T; Copper Complexes with Polypyridyl Tridentate Ligands and their Biological Significance: A Review – submitted to Orbital: The Electronic Journal of Chemistry

Manuscripts under Preparation

Kaluthanthiri, D; Weldegheioris, T.K.; Umapiyadarshani, R; Fronczek, FR; Samarakoon, S.; Weerasinghe, L; Perera, IC;; Perera, T; ‘Synthesis, crystallography, spectral characterization and docking studies of biphenyl benzodioxan and quinolene scaffolds containing zinc (II)complexes towards potential biological applications’ – to be submitted to RSC Advances

Hettige, Imesha, Fronczek, Frank, Perera, Inoka C; **Perera, Theshini**; Synthesis of Platinum complexes with ethylenediamine- sulphonamide ligands towards potent anti-cancer and fluorescence imaging applications

Peiris, Piumi; **Perera, Theshini**; Synthesis of DPA based NNN donor ligands having piperidinyl groups and their platinum complexes towards potent anti-cancer applications

Darshani, T;; Kaluthanthiri, D.; Maladeniya, C; Ranasinghe, K., Fronczek, F.; Sameera, W M C, Perera, I.C.; **Perera, Theshini**, “Biological Evaluation of Platinum Sulfonamido Complexes: Synthesis, Characterization, Cytotoxicity & Biological Imaging”

Kaluthanthiri, D; Fronczek, FR; Samaraweera, P; Perera, IC, Weerasinghe, L; **Perera, T**; ‘Synthesis, structural results and molecular docking studies of biphenyl derivatized novel zinc (II)complexes towards therapeutic applications’

Weerasuriya, W.A.A.P.P.; Perera, I.C.; **Perera, T.**; Synthesis and characterization of dipicolylamine sulfonamide ligands with iodobenzene and trifluoromethyl pyridine pendant groups and their rhenium tricarbonyl complexes

Wattevidana, A; Perera, T; “Synthesis and characterization of novel sulfonamide derivatized copper complexes towards promising biological applications”

Peer Reviewed Journal Articles

Kaluthanthiri, D; Umapiyadarshani, R; Samarakoon, S.; Weerasinghe, L; Perera, IC;; Perera, T; ‘Synthesis, and characterization of novel diethylenetriamine based sulfonamide ligands and their bidentate platinum (II)complexes towards anticancer drug leads’ – Current Scientia 26 No 2 **2023**

Taneesha Baduraliyanage and Theshini Perera, “Metal dipicolylamines and their biomedical applications: A mini review” Current Scientia Special Issue of Reviews **2023**

Dilmi Vitharana and Theshini Perera, "Complexes of N, N- and N, N, N- Sulfonamide Ligands as Therapeutic and Diagnostic Agents" Current Scientia Special Issue of Reviews **2023**

Kaushalya, C; Darshani, T; Samarakoon, S.R.; Fronczek, Frank R.; Perera, IC; **Perera, Theshini.**
"Synthesis, Characterization and Remarkable Anticancer Activity of Rhenium Complexes Containing Biphenyl Appended NNN Donor Sulfonamide Ligands:" Current Scientia 25 No 2 **2022**

Abstracts and Conference Proceedings

Yasarathna KWGKP; Mauran S; Perera IC; Fronczek FR; Perera NT; "Novel sulfonamide derivatized Zn(II)-dipicolylamine complexes as antibacterial drug leads" The 9th Princess Chulabhorn International Science Congress, Thailand, 2024 (accepted to be presented in December 2024)

Yasarathna KWGKP; Perera IC; Perera NT; "Rhenium tricarbonyl complexes as potential anticancer agents: a versatile approach for novel drug discovery and development" International Conference on Applied and Pure Sciences, 2024, Faculty of Science, University of Kelaniya, Sri Lanka

Edirisinghe, L*; Perera, IC, Perera, T; "Naphthalene appended diethylenetriamine based ligands and their platinum complexes as cancer theranostic agents International Conference on Applied and Pure Sciences, 2024, Faculty of Science, University of Kelaniya, Sri Lanka (***Best Presenter Award**)

Kaluthanthiri, D; Fronczek, FR; Samaraweera, P; Perera, IC, Weerasinghe, L; Perera, T; 'Trinuclear and mononuclear Cd(II) complexes with the biphenyl-derived sulfonamide ligands: Synthesis, spectral and structural analysis' accepted and to be presented at the ACS Spring meeting, 27th March **2024**

Wattevidana, A; Perera, T; "Synthesis and characterization of novel sulfonamide derivatized copper complexes towards promising biological applications" Proceedings of the 79th Annual Sessions of the Sri Lanka Association for the Advancement of Science **2023**

Dimagi, de Zoysa; Perera, T; Cooray, A T; "Development of sulfonamide derivatized dipicolylamine ligands as fluorescent probes for the selective determination of Fe²⁺/Fe³⁺ ions" Proceedings of the 79th Annual Sessions of the Sri Lanka Association for the Advancement of Science **2023**

Yasarathna KWGKP; Perera IC; Fronczek FR; Perera NT; "Synthesis and characterization of trimethylbenzene and chlorobenzene derivatized platinum complexes towards biological applications" 52nd Annual Session of the Institute of Chemistry Ceylon, June **2023**

Edirisinghe, L; Perera, IC, Perera, T; 'Synthesis and characterization of ethylenediamine derivatized ligands and their platinum complexes' Presented at the ACS Spring meeting, 27th March **2023**

Kaluthanthiri, D; Fronczek, FR; Samaraweera, P; Perera, IC, Weerasinghe, L; Perera, T; 'Trinuclear and mononuclear Cd(II) complexes with the biphenyl-derived sulfonamide ligands: Synthesis, spectral and structural analysis' Presented at the ACS Spring meeting, 27th March **2023**

Kaluthanthiri, D; Fronczek, FR; Samaraweera, P; Perera, IC, Weerasinghe, L; Perera, T; 'Synthesis, structural results and molecular docking studies of biphenyl derivatized novel zinc (II) complexes towards therapeutic applications' Presented at the ACS Spring meeting, 23rd March **2022**

C. Kaushalya*, N.T. Perera; "Design, synthesis, characterization and remarkable anticancer activity of rhenium tricarbonyl complexes containing biphenyl appended NNN donor sulfonamide ligands towards lung cancer." International Research Conference in Health Sciences – 2022 (*received the award **"Best Young Innovator in Health Sciences 2022"**)

Vitharana, DHS; Perera, T; "Synthesis and characterization of ethylenediamine sulfonamide derivatized zinc and platinum complexes towards fluorescence imaging applications" Proceedings of the 78th Annual Sessions of the Sri Lanka Association for the Advancement of Science **2022**

Hansani, BDT; Perera, T; "Synthesis and characterization of novel copper dipicolylamine sulfonamide complexes toward possible biological applications" Proceedings of the 78th Annual Sessions of the Sri Lanka Association for the Advancement of Science **2022**

Yasarathna KWGKP; Perera IC; Perera NT; "Zinc complexes bearing novel sulfonamide ligands towards biological applications: Crystal structures and molecular docking studies". Oral presentation at the 77th Annual Scientific Sessions of the Sri Lanka Association for the Advancement of Science **2021**

Kaluthanthri, D; Weerasinghe L.; Perera, T; "Synthesis of novel benzodioxan and biphenyl based dien sulfonamide ligands and their platinum(II) complexes" Proceedings of the 77th Annual Sessions of the Sri Lanka Association for the Advancement of Science **2021**

Hettige, Imesha*, Perera, Inoka, **Perera, Theshini**; Synthesis and characterization of Platinum complexes with ethylenediamine and diethylenetriamine sulphonamide ligands towards biological applications, 50th Annual Session of the Institute of Chemistry Ceylon, June **2021** (*Received the **Sultan Bawa Award**)

Kaluthanthri, D; Fronczek, F.R; Weerasinghe L; **Perera, T**; "Synthesis, characterization, crystal structures of novel di-(2-picoly) amine appended rigid phenyl based and non-rigid 1,4-benzodioxan based ring systems and their Pt (II) complexes towards potential biological applications". Oral presentation at the ACS Spring - Division of Inorganic chemistry, American Chemical Society, **2021**

Kaluthanthri, D; Fronczek, F.R; Perera IC ; Weerasinghe L; **Perera,T**; "Synthesis, XRD analysis and molecular docking studies of novel di-(2-picoly)amine appended sulfonamides towards cyclooxygenase-2 inhibitory activity" Research Conference in Health Sciences ,Faculty of Allied Health Sciences, University of Sri Jayewardenepura, **2021**

Yasarathna KWGKP, Perera IC, Perera NT, 'Synthesis and characterization of di-(2-picoly)amine derivatized sulfonamide ligands towards their biological applications'. Research Conference in Health Sciences, Faculty of Allied Health Sciences, University of Sri Jayewardenepura, 2021.

Hettige, Imesha, **Perera, Theshini**; Synthesis of Platinum complexes with ethylenediamine-sulphonamide ligands towards potent anti-cancer and fluorescence imaging applications, ACS Fall 2020 Virtual Meeting and Expo (**2020**)

Vitharana, Nipuni; Deraniyagala, Samitha; Cooray, Asitha, **Perera, Theshini**, Novel fluorescence probes for determination of Fe³⁺/Fe²⁺ ions in biological systems using sulfonamide derivatized dipicolylamine ligands, ACS Fall 2020 Virtual Meeting and Expo (**2020**)

Peiris, Piumi; **Perera, Theshini**; Synthesis of DPA based NNN donor ligands having piperidiny groups and their platinum complexes towards potent anti-cancer applications, International Conference on Frontiers of Chemical Technology of the Institute of Chemistry Ceylon, July (2020)

Hettige, Imesha, **Perera, Theshini**; Synthesis of Platinum complexes with N^N- sulphonamide ligands towards potent anti-cancer and fluorescence imaging applications, International Conference on Frontiers of Chemical Technology of the Institute of Chemistry Ceylon, July (2020)

K.V.N.N. Vitharana, **N.T. Perera**, A. Cooray, S.P. Deraniyagala, Novel fluorescence sensors for determination of Fe³⁺, in biological systems using Sulfonamide derivatives of dipicolylamine ligands, International Conference on Frontiers of Chemical Technology of the Institute of Chemistry Ceylon, July (2020)

Kaluthanthri, D; Abeysinghe, A A P H; **Perera, T**; "Synthesis of novel platinum (II) complexes bearing sulfonamide appended diethylenetriamine ligands as a potential diagnostic tool" Proceedings of the 75th Annual Sessions of the Sri Lanka Association for the Advancement of Science 2019

Weerasuriya, W.A.A.P.P.; Gayara, J.A.S.; Perera, I.C.; Deraniyagala, S.P.; Perera, N.T.; Synthesis and characterization of dipicolylamine sulfonamide ligands with iodobenzene and trifluoromethyl pyridine pendant groups and their rhenium tricarbonyl complexes, Proceedings of the 75th Annual Sessions of the Sri Lanka Association for the Advancement of Science 2019

W.G.K. Fonseka, N.T. Perera and S.P.Deraniyagala Synthesis and characterization of novel zinc ditriazine complexes, *Chemistry in Sri Lanka*, 36(02), 20, 2019

Darshani, T; Perera, IC and **Perera, Theshini**; Synthesis, characterization of sulfonamide-derivatized di-(2-picolyamine) ligands and their *fac*-[Re(CO)₃L] complexes towards fluorescence imaging, Chemistry in Sri Lanka 2019, 36(2)

Maladeniya, C; **Perera, Theshini**, "Biological Evaluation of Platinum Sulfonamido Complexes: Synthesis, Characterization, Cytotoxicity & Biological Imaging" 5th International Conference on Multidisciplinary Approaches (iCMA - 2018) ``Sustainable Development through Multidisciplinary Research, 2018

Darshani, T; Kaushalya, C; **Perera, Theshini**, "Synthesis, structural and photophysical properties of Platinum(II) sulfonamide complexes of di-(2-picoly)amine, 5th International Conference on Multidisciplinary Approaches (iCMA - 2018) ``Sustainable Development through Multidisciplinary Research, 2018

Darshani, T; Fronczek, Frank, R; Perera I C; **Perera, Theshini**, "Synthesis and characterization of a novel naphthalene-derivatized tridentate ligand and its *fac*-Re(CO)₃L complex as potential imaging and therapeutic agents for lung cancer" Asia Chemistry, Singapore 2018 11th Annual Congress in Chemistry

Thushara, N; **Perera, Theshini**, "Synthesis, characterization and biological studies of dipicolylamine sulfonamide derivatized platinum complexes as potential anticancer agents" 3rd International Research Symposium on Pure and Applied Sciences, 26th October 2018

Darshani, T; Priyadarshani, V V; Samarakoon, S, Perera, IC and **Perera, Theshini**; Synthesis, characterization and biological studies of a novel naphthalene-derivatized tridentate ligand and its *fac*-[Re(CO)₃L] complex as potential therapeutic agents for lung cancer, *Chemistry in Sri Lanka* 2018, 35(2)

Rasakulendran S; **Perera N T**; Perera I C, “Natural ligands of transcriptional regulator Rv3095: A potential drug target for tuberculosis”, *South Asian Biotechnology Conference* 2018

Darshani, T; Thurshara, N; Samaranayake, S; Perera I C; **Perera, Theshini**, “Synthesis and Characterization of a Naphthalene-derivatized Ligand and its Rhenium Tricarbonyl Complex towards Fluorescent Imaging”, 4th International Conference on Multidisciplinary Approaches (iCMA - 2017) “Sustainable Development through Multidisciplinary Research, Sep 2017

Rasakulendran S; **Perera N T**; Perera I C, “Transcriptional regulator Rv3095 as potential drug target for *Mycobacterium tuberculosis*” – The International Conference on Nutritional and Genetic Epidemiology, 2017, pp 18.

Rasakulendran S; **Perera N T**; Perera I C, Metallobiology of transcriptional regulator Rv3095 of *Mycobacterium tuberculosis*: A potential drug target – in World Congress on Genetics, Genomics and Personalized Medicine, 2017

Abeydeera, N; Rasakulendran, S; Abeywickrama, T; Nanayakkara, C; Perera I C; **Perera, T** “Synthesis, Characterization and BSA binding studies of novel zinc - ferene complexes” *Chemistry in Sri Lanka* **2016**, 33, 26-27

Subasinghe, A; Perera I C; **Perera, Theshini**, “Synthesis, Characterization, and Biological Studies of a Piperidinyl Appended Dipicolylamine Ligand and Its Rhenium Tricarbonyl Complex as Potential Therapeutic Agents for Human Breast Cancer”; *Chemistry in Sri Lanka* 2015, 32(2), 15-16

Katugampala, S S, Nanayakkara, C, **Perera, T**; Synthesis, Characterization and Antibacterial Studies of Novel Copper-Triazine Complexes, *41st NOBCCHE Conference, 2014, New Orleans, USA*

Katugampala, S S, Nanayakkara, C, **Perera, T**, “Synthesis, characterization and antibacterial studies of novel Copper Ferrozine Complexes” *Chemistry in Sri Lanka* 2014, 31(2), 15-16

Ranasinghe, P V H K, Perera I C, Handunetti, S, **Perera, T**, “Synthesis and characterization of Rhenium(I) tricarbonyl ferene complexes for fluorescence imaging” *Chemistry in Sri Lanka* 2013, 30, 42-43

Marzilli, Luigi G.; Lipowska, Malgorzata; Marzilli, Patricia A.; He, Haiyang; **Perera, Theshini**; Taylor, Andrew. “Multidentate ligand linkage isomerism of *fac*-[Re(CO)₃(polyaminocarboxylate)] analogs of ^{99m}Tc radiopharmaceuticals”. Abstracts of Papers, 236th ACS National Meeting, Philadelphia, PA, United States, August, 2008

Marzilli, Luigi G.; Maheshwari, Vidhi; **Perera, Theshini**; Christoforou, Anna Maria; Fronczek, Frank R.; Marzilli, Patricia A. “Neglected N-Donor Ligands Bound in Pt(II) and Re(I) Complexes with Biomedical Relevance”. 4th EuCheMS Conference on Nitrogen Ligands in Coordination Chemistry, Metal-Organic Chemistry, Bioinorganic Chemistry & Homogeneous Catalysis, Garmisch-Partenkirchen, Germany, August 2008

PhD/MPhil Supervision

Ms Dinithi Kaluthanthiri, PhD 2023

Dissertation title: Synthesis and characterization of derivatized dipicolylamine and diethylenetriamine ligands and their metal complexes as potential therapeutic agents and diagnostic tools

Ms Taniya Darshani, MPhil 2020

Dissertation title: Synthesis and characterization of sulfonamide complexes of rhenium towards fluorescent imaging

Ms Sujanthe Maruan, PhD 2022 (Co-supervisor)

Dissertation title: Ligand responsive MarR homologs as novel drug targets against *Mycobacterium tuberculosis*

Ms Kithmini Yasarathna, PhD anticipated 2025

Dissertation title: Synthesis, characterization and biological studies of sulfonamide derivatized platinum, zinc and rhenium complexes

Mr Lashan Edirisinghe, MPhil anticipated 2025

Dissertation title: Synthesis, characterization and evaluation of Pt(II) and Zn(II) complexes towards new anticancer agents

Awards

SUSRED Award by the NSF – 2020/2021

NRC Merit Award for Scientific Publications – 2016

Research Awards – University of Sri Jayewardenepura, 2015-2023

Outstanding Research Scholar 2009-2010, Department of Chemistry, Louisiana State University

Outstanding Research Scholar 2008-2009, Department of Chemistry, Louisiana State University

Ingram Shield - Most Outstanding Girl of the Year 1996, Ladies' College, Colombo

Affiliations

Elected Council Member, Sri Lanka Association for the Advancement of Science, 2024

Editor, Sri Lanka Association for the Advancement of Science, 2020, 2021 and 2022

Hony Editor, Institute of Chemistry, Ceylon, 2018-2019

President, Section E2, Sri Lanka Association for the Advancement of Science, 2019

Vice President, Section E2, Sri Lanka Association for the Advancement of Science, 2018

General Secretary, Sri Lanka Association for the Advancement of Science, 2014 and 2015

Member, House and Finance Committee, SLAAS, 2014-2015, 2020-2022, 2024

Grants

Grant no RC/URG/SCI/2024/17 for Rs 2.4 million awarded by the University of Sri Jayewardenepura for “Synthesis and characterization of metal complexes of azobenzene, biphenyl and piperidine derivatized aliphatic amine ligands for biological applications”

Grant no ASP/01/RE/SCI/2022/25 for Rs 2.7 million awarded by the University of Sri Jayewardenepura for “Synthesis, characterization and biological studies of metal complexes containing imidazole and pyridine based ligands as anticancer agents”

Grant no ASP/01/RE/SCI/2020 for Rs 2.6 million awarded by the University of Sri Jayewardenepura for “Synthesis and characterization of sulfonamide derivatized Zn(II)-dipicolylamine complexes towards biological applications”

Grant no ASP/01/RE/SCI/2018/22 for Rs 2.73 million awarded by the University of Sri Jayewardenepura for “Synthesis and characterization of novel Platinum Complexes containing dipicolylamine derivatized sulfonamide ligands towards biological imaging and/or possible anticancer activity”

Grant no ASP/01/RE/SCI/2018/21 for Rs 2.5 million awarded by the University of Sri Jayewardenepura for “Synthesis and characterization of novel rhenium tricarbonyl complexes bearing dipicolylamine derivatized sulfonamide ligands towards fluorescence applications”

Grant no ASP/01/RE/SCI/2018/38 for Rs 0.6 million awarded by the University of Sri Jayewardenepura for “Synthesis, characterization and fluorescence studies of novel rhenium tricarbonyl complexes containing derivatized diethylenetriamine sulfonamide ligands”

Grant no ASP/01/RE/SCI/2015/19 for Rs 1.68 million awarded by the University of Sri Jayewardenepura for “Synthesis and characterization of Zn complexes of ditriazine and pyridyl triazine towards developing anticancer agents”

Grant no ASP/06/RE/SCI/2013/08/12M for Rs 1.2 million awarded by the University of Sri Jayewardenepura for “Synthesis of thymidine appended Rhenium tricarbonyl dipicolylamine complexes towards targeted imaging and therapy of cancer”

Co-investigator in Grant no NRC 15-63 for Rs 3.99 million awarded by the National Research Council for “Ligand responsive MarR homologs as novel drug targets against *Mycobacterium tuberculosis*”

Invited Talks / Addresses

Keynote Speaker – RUSS2025 (Ruhuna Undergraduate Research Symposium) held at Ruhuna University Sri Lanka (Title: “Being Agents of Change through Creative Inquiry”)

“Women in Science; What goes on Behind the Scenes?” - Webinar for Women Chemists
Committee of the Institute of Chemistry Ceylon – November 2022

Presidential Address of Section E2 of the Sri Lanka Association for the Advancement of Science,
titled “Metal Based Theranostics: The New Frontier” at the Prof VK Samaranayaka Auditorium of
the University of Colombo, 12th December 2019

Keynote Speaker – Undergraduate Research Symposium, Institute of Chemistry Ceylon, August
10, 2017

“The role of Single Crystal Diffraction in Rhenium Complexes having Biomedical Relevance” 1st
South East Asia Conference on Crystal Engineering (SEACCE), Colombo, September 2016

“Nuclear Imaging: the Role of Rhenium Complexes”, jointly organized by Section E2/SLAAS and
Department of Chemistry, University of Sri Jayewardenepura, October 2013

Outreach activities to popularize science (selected)

Chief Guest, STEM DAY of Ilma International Girls School, November 2024

Chief Guest – Graduation Ceremony of Cambridge School of Colombo – December 2022

Introduced the **Little Scientist** kit for students of grades 6-8 to ignite their curiosity towards
science during tenure as President of Section E2 of the Sri Lanka Association for the
Advancement of Science. See <https://groundviews.org/2021/03/08/celebrating-inspiring-women-an-interview-with-theshini-perera/> for details.

“Inspiring Future Scientists” organized by Section E2/SLAAS, at Gurukanda Vidyalaya, Induruwa
– July 2015

“Inspiring Future Scientists” organized jointly by Section E2/SLAAS, National Science Foundation
and Royal Society of Chemistry at Swarnajanthi Vidyalaya, Kegalle – February 2014

Chief Guest – Children’s Day of Zahira College Colombo, October 2019

Chief Guest – Annual Prize Giving of Louvre International School, June 2018

Soft Skill Engagement

Master of Ceremony at the Annual Sessions of the Sri Lanka Association for the
Advancement of Science, 2019-2024

Toastmaster of the J’pura University Toastmasters Club at its inception

Master of Ceremony at the First Charter Presentation and Installation Ceremony of the J’pura
University Toastmasters Club – 22nd July 2015

Master of Ceremony at the 7th Sri Lanka Biennial Conference on Science and Technology (BICOST VII) organized jointly by NASTEC and the Ministry of Technology and Research held at Waters Edge July 2014

Member, Interview Panel – J’pura Employability Skills Award JESA - 2017, 2018, 2023, University of Sri Jayewardenepura

Leader, Interview Panel – Team Player Award, – J’pura Employability Skills Awards JESA 2024, University of Sri Jayewardenepura

Editorial / Reviewer Experience

Editor-in-Chief – Current Scientia (formerly Vidyodaya Journal of Science) – 2023 – 2025

Co-Editor FITI2020, FITI2021 and FITI2022 – From Innovation to Impact Conference organized by the Inventor’s Commission and the Sri Lanka Association for the Advancement of Science

Member Editorial Board – Sri Lankan Academy of Young Scientists - 2018

Reviewer (Journals) – Inorganica Chimica Acta, RSC Advances, Journal of Advances in Chemistry, Polyhedron, Journal of Medicinal Chemistry, Chemistry Select, International Research Journal of Pure and Applied Chemistry, Journal of Applied Life Sciences International

Reviewer (Conferences) – Rajarata University – 2020, OUSL Journal, ICHEMC, SLAAS conferences

Co-Editor – Proceedings of the Undergraduate Research Symposium conducted by National Science and Technology Commission (NASTEC) – 2017

Board Member of the Editorial Board of University of Sri Jayewardenepura Newsletter – January 2015 – 2020

Editorial Board of IIUPST2012 and IIUPST2014

Other Experience

Coordinator – Activity 5 – **ELTE Ahead Project awarded to FAS/USJ 2019-2022** – Commenced offering **credit bearing courses in English** for students of the Faculty of Applied Sciences (FAS) and initiated the **FAS English Corner** which houses an Academic Discourse Unit and a Reading Room at the faculty premises. <https://www.sjp.ac.lk/news/opening-of-fas-english-corner/>

Coordinator – Masters Programme in Industrial Analytical Chemistry, University of Sri Jayewardenepura, 2019-2021

Coordinator - University Organizing Committee of the 71st Annual Sessions of SLAAS, University of Sri Jayewardenepura 2015

Coordinator – Faculty Prospectus of the Faculty of Applied Sciences, University of Sri Jayewardenepura, 2012 – 2015

Member of Judging Panel – Speech Star Faculty of Humanities and Social Sciences 2021 and 2022

Member of Judge Panel – 3MT Competition organized by Sri Lankan Academy of Young Scientists – 2019-2023

Member of Judging Panel – SLAAS Section E2 undergraduate quiz competition 2022, 2023, 2024

Member of Judging Panel – SLAAS Section E2 undergraduate thesis competition 2021

Evaluator – Oral Presentations of the Undergraduate Research Symposium conducted by National Science and Technology Commission - 2017

Board member – Ethical Review Committee of FAS, University of Sri Jayewardenepura 2024

Board member – Centre for Advanced Material Research, University of Sri Jayewardenepura – 2018-2020

Member, Center for Cancer Research, University of Sri Jayewardenepura, 2016 - 2019

Resource Person for Workshop on Academic Writing for PGDip/Master/Master of Science students in Industrial Organic Chemistry Degree Programme, University of Sri Jayewardenepura, 2024

Resource Person for Workshop on SOP Writing organized by the Chemical Society of the University of Sri Jayewardenepura – 2021

Resource Person for Academic Skills Development Workshop for MSc students in Industrial Analytical Chemistry, University of Sri Jayewardenepura, 2015 – 2019

Resource Person for Academic Writing Workshops for special degree students in Chemistry, University of Sri Jayewardenepura, 2012 – 2024

“Inorganic Chemistry Curriculum Development”, Workshop for Developing Chemistry Curricula – October 2014

Resource Person for the Workshop on Research Methodology conducted by the Department of Chemistry, University of Sri Jayewardenepura, 23rd November 2013

Chief Examiner – Advanced Level Chemistry paper marking – 2013, 2020, 2021, 2022

Co-coordinator – Selection Exam for 4th International Chemistry Olympiad for undergraduates 2011 and 2012

Completed the training programme on “Teaching and Assessment Methodology” conducted by the Staff Development Centre of the University of Sri Jayewardenepura in 2006

Member of the Sports Science Committee to initiate the Sports Science Degree Program at the Faculty of Applied Sciences

Referees

Prof Luigi G Marzilli, Emeritus Professor and former Chair/ Dept of Chemistry, Louisiana State University, USA	225 7669217	lsumarzil@gmail.com
Emer Prof S P Deraniyagala, Emeritus Professor, Former Chair and Head/ Dept of Chemistry, University of Sri Jayewardenepura	+94773620165	s.p.deraniyagala@gmail.com
Prof Rohini M de Silva, former Head/ Dept of Chemistry, University of Colombo	+94714406263	rohini@chem.cmb.ac.lk