

RANGA DISSANAYAKE

No. 259/03, Elawella, Bellapitiya, Horana, Sri Lanka

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EDUCATION: DEPARTMENT OF CHEMISTRY, UNIVERSITY OF COLOMBO, SRI LANKA

Doctor of Philosophy, (Organic Chemistry) Full time research degree
November 2012 – August 2016

Thesis: Antimicrobial secondary metabolites produced in culture by endophytic fungi of Sri Lankan flora. (Prof. E. Dilip de Silva – Organic Chemistry, Prof. R.L.C. Wijesundera - Microbiology, Dr. C.D. Wijayarathna – Molecular Biology and Biochemistry)

Bachelor of Science special in Pharmacy,
June 2007 – August 2011

Subjects: Chemistry, Biochemistry, Molecular Biology, Microbiology, Computer Science, Nuclear Science, Plant science, Pharmacology, Anatomy, Physiology, Pharmaceutics

Thesis: Hypoglycaemic and antihyperglycaemic activities of an aqueous leaf extract of *Adenanthera pavonina* (Fabaceae) in rats (Prof. W.D. Ratnasooriya – Pharmacology)

RESEARCH AND TEACHING EXPERIENCES

Postdoctoral Scientist (Industrial) – (Current position) Sri Lanka Institute of Nanotechnology (SLINTEC)
Development of nutraceuticals for neuroprotection, hepatoprotection and anti-cancer
Nanotechnology based targeted drug delivery systems for insulin, metformin and cisplatin
Development of polymer based scaffold for secondary infected wounds and burn bounds

Visiting lecturer – Pharmaceutical Chemistry: Department of Pharmacology and Pharmacy, Faculty of Medicine, **University of Colombo, Sri Lanka**.
Neuropharmacology: Colombo center, **Management and Science University, Malaysia**

Research Assistant, - Department of Chemistry University of Colombo – March 2013 – March 2016
Worked with Prof. E. Dilip de Silva, Prof. R.L.C. Wijesundera and Dr. C.D. Wijayarathne on isolation of bio-active metabolites from natural sources (fungi, plant, lichen, actinomycetes, marine algae and sponges) of Sri Lanka.

Coordinator of the Prof. Dilip's natural products research group (2013-2015)
(<http://www.dilipdesilvachemistry.com/people/advisor>)

Research collaboration

- Prof. Raymond Anderson and Dr. David Williams, Department of Chemistry, University of British Columbia, Canada (Natural products research – Microbial, Terrestrial and Marine)
- Prof. Philip Williams and Mr. Niranjan Gunasekara, Department of Chemistry, University of Hawaii at Manoa, USA. (Bioactive compounds from endophytic fungi)
- Prof. Neelika Malavige, University of Sri Jayawardenapure, Sri Lanka (anti-viral and anti-cancer research)

- ICCBS, Pakistan, Prof. Atta-ur-Rahman, Prof. Iqbal Choudhary and Dr. Achyut Adhikari (Natural product drug discovery)
- Prof. W.D. Ratnasooriya, Department of Basic Sciences, General Sir John Kotelawala Defence University, Sri Lanka. (Pharmacological and Toxicological research)
- Dr. Pamoda B. Ratnaweera, Department of Science and Technology, Uva Wellassa University, Sri Lanka. (Bioactive compounds from endophytic fungi)
- Dr. C.N. Nanayakkara, Department of Plant Sciences, University of Colombo, Sri Lanka. (Bioremediation methods for heavy metals and oil spilling/ industrial waste)

SKILLS AND COMPETENCIES

- Isolation and characterization of bioactive drug leads from natural resources, Bio-assays (anti-microbial, anti-inflammatory, anti-cancer), GC-MS, LC-MS, HPLC, NMR and Mass techniques, Structure elucidation
- Nanoparticles, Nano-composites and drug delivery systems
- Compound and composite characterization methods TEM, SEM and XRD
- Microbiology (isolation, culturing and identification), Cell culture technologies and basic molecular biology techniques (DNA isolation and PCR)
- Bioremediation techniques and biopolymers
- Pharmaceutical formulation and quality assurance
- Animal research Rat, Rabbit (Clinical trial and toxicological evaluation)
- Logical thinking, Multitasking, Innovative ideas, Team player, Leadership and Problem solving capabilities

OTHER PROFESSIONAL EXPERIENCE

- Registered pharmacist at Medical Council of Sri Lanka
- Certified internal auditor for ISO 14001:2004 (SGS Lanka)
- Three months training program at Sri Lanka Pharmaceutical Manufacturing Corporation
- Worked as Chemist at Natures Beauty Creations, Horana (From Jan 2012 to Oct 2012)
Task: Maintain the quality of process and products according to ISO 9001, 14001 and GMP, R & D, Effluent management

PROFESSIONAL MEMBERSHIP

- Life member of Sri Lanka Association of Advancement of Science (SLAAS)
- Life member of Institute of Biology, Sri Lanka
- Member of Young Scientist Forum of Sri Lanka
- Member of Pharmaceutical Society of Sri Lanka

EXTRA CURRICULUM ACTIVITIES

- Member of Chemical Society, Faculty of Science, University of Colombo.
- Member of Science Society of the University of Colombo.
- Member of Mathematic and Astronomical Society of the University of Colombo.
- Member of Field Ornithology Group in Sri Lanka (fogs).
- Social worker, Emergency service (Volunteer), United Nations

BASIC INFORMATION

- Sex: Male
- Date of Birth: 11/09/1986
- Age: 30
- Civil Status: Single

REFERENCES

Prof. E.Dilip de Silva

Senior professor in Organic Chemistry

Chair in Organic Chemistry
Department of Chemistry,
University of Colombo,
Sri Lanka

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Prof. W.D. Ratnasooriya

Senior professor in Physiology and Pharmacology

Department of Basic Sciences
Faculty of Allied Health Sciences,
General Sir John Kotelawala Defence
University, Sri Lanka

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Dr. C.D. Wijayarathna

Senior Lecturer in Biochemistry and Molecular Biology

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Faculty of Science,
University of Colombo,
Sri Lanka

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PUBLICATIONS

Patent (LK/P/01/18931)

Novel method to isolate Mycoleptodiscin B from endophytic fungi *Mycoleptodiscus* sp. isolated from leaves of *Calamus thwaitesii*. Thereof its application as a novel drug lead for pathogenic bacteria.

Inventors: **Ranga K. Dissanayake**, Pamoda B. Ratnaweera, David E. Williams, E.D. de Silva, C.D. Wijayarathne, R.L.C. Wijesundera and Raymond J. Andersen

Research Articles

Wanigasekara Daya Ratnasooriya, Sachitra Gayanthi Ratnasooriya, **Ranga Dissanayake**, In vitro antifungal activity against *Candida* species of Sri Lankan orthodox black tea (*Camellia sinensis* L.) belonging to different agro-climatic elevations, *Journal of Coastal Life Medicine*, 2017; 5(2): 66-69

Wanigasekara Daya Ratnasooriya, Sachitra Gayanthi Ratnasooriya, **Ranga Dissanayake**, In vitro antibacterial activity of Sri Lankan orthodox black tea (*Camellia sinensis* L.) belonging to different agro-climatic elevations, *Journal of Coastal Life Medicine*, 2016; 4(8), 623-627

Ranga K. Dissanayake, Pamoda B. Ratnaweera, David E. Williams, E.D. de Silva, C.D. Wijayarathne, R.L.C. Wijesundera and Raymond J. Andersen, Antimicrobial activities of endophytic fungi of Sri Lankan *Calamus thwaitesii* Becc. and mycoleptodiscin B, produced by the endophyte *Mycoleptodiscus* species. *Journal of Applied Pharmaceutical Science*, 2016; 6(1), 22-28

Ranga Dissanayake, Pamoda B. Ratnaweera, David E. Williams, E.D. de Silva, C.D. Wijayarathne, R.L.C. Wijesundera and Raymond J. Andersen, Antimicrobial activities of endophytic fungi of the Sri

Lankan aquatic plant *Nymphaea nouchali* and chaetoglobosin A and C, produced by the endophytic fungus *Chaetomium globosum*. *Mycology*, 2016; 7(1), 1-8

D.M.R.K. Dissanayake, Jayantha Wijayabandara, W.D. Ratnasooriya. Hypoglycaemic and antihyperglycaemic activities of an aqueous leaf extract of *Adenanthera pavonina* (Fabaceae) in rats. *International Journal of Pharmaceutical Research and Allied Sciences*, 2016; 5(1)

R.D. Nimantha Karunathilaka, Athige Rajith Niloshan Silva, Chathuranga Bharathee Ranaweera, **D.M.R.K. Dissanayake**, N.R.M. Nelumdeniya, Ranjith Pathirana and W. D. Ratnasooriya. (2016); In vitro antibacterial activity of hexane, chloroform and methanol extracts of different parts of *Acronychia pedunculata* grown in Sri Lanka. *International Journal of Advanced Research*, 2016, 4(8), 1574-1579]

A.R.N. Silva, **D.M.R.K. Dissanayake**, C.B. Ranaweera, R. Pathirana, W.D. Ratnasooriya. Evaluation Of In Vitro Antibacterial Activity of Some Sri Lankan Medicinal Plants. *International Journal of Pharmaceutical Research & Allied Sciences*, 2015; 4(2):54-57

Conference Papers

D.M.R.K. Dissanayake, Pamoda B. Ratnaweera, David E. Williams, E.D. de Silva, C.D. Wijayarathne, R.L.C. Wijesundera and Raymond J. Andersen, Chaetoglobosin C, a cytochalasan from an endophytic fungus isolated from *Nymphaea nouchali* endemic to Sri Lanka, proceeding of the Young Scientist forum of Sri Lanka (YSF) 4th Annual sessions 2015, p 128.

D.M.R.K. Dissanayake, E.D. de Silva, R.L.C. Wijesundera and C.D. Wijayarathne, Antimicrobial activities of endophytic fungi isolated from the aquatic plant *Nymphaea nouchali* (Nymphaeaceae) endemic to Sri Lanka, proceeding of the Sri Lanka Association of Advancement of Science (SLAAS) 70th Annual sessions 2014, p 32.

D.M.R.K. Dissanayake, Pamoda B. Ratnaweera, David E. Williams, E.D. de Silva, C.D. Wijayarathne, R.L.C. Wijesundera and Raymond J. Andersen, Mycoleptodiscin B, an antimicrobial alkaloid from *Mycoleptodiscus* sp. endophytic in *Calamus thwaitesii* (Arecaceae), proceeding of the Annual Research Symposium-University of Colombo, 2014 Annual sessions, p 224.

D.M.R.K. Dissanayake, E.D. de Silva, R.L.C. Wijesundera, and C.D. Wijayarathne, Antimicrobial activities of endophytic fungi isolated from *Calamus thwaitesii* (Arecaceae) endemic to Sri Lanka, proceeding of the Institute of Biology Sri Lanka (IOBSL) 34th Annual sessions 2014, p 51.

D.M.R.K. Dissanayake, E.D. de Silva, R.L.C. Wijesundera and C.D. Wijayarathne, Antimicrobial evaluation of endophytic fungi isolated from the plant *Leucus zeylanicus* (Lamiaceae) endemic to Sri Lanka, proceeding of the Sri Lanka Association of Advancement of Science (SLAAS) 69th Annual sessions 2013, p 105.

D.M.R.K. Dissanayake, J. Wijayabandara, W.D. Ratnasooriya. Hypoglycaemic, antihyperglycaemic activities of an aqueous leaf extract of *Adenanthera pavonina* (Fabaceae) in rats. Proceeding of the TradMed international conference, Colombo, 2017