# Curriculum vitae

# NANAYAKKARAWASAM KARIJJAWATTAGE ANJANA SILVA

(MBBS, M.Phil, PhD, FRSPH)

#### **Senior Lecturer and Head**

Department of Parasitology
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#### **Adjunct Senior Research Fellow**

Monash Venom Group, Department of Pharmacology, Faculty of Medicine Nursing and Health Sciences, Monash University, Clayton 3800, Victoria, Australia

Residence: No: 102, Udarata Sandella, Haragama, Gurudeniya, Kandy 20189, Sri Lanka

Areas of expertise: Toxinology, Toxicology, Parasitology, Herpetology, Ichthyology

#### **CAREER TRACK**

April 2017 to presnt	Head, Department of Parasitology, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura, Sri Lanka.
Oct 2013 to present	Senior Lecturer, Department of Parasitology, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura, Sri Lanka.
Feb 2016 to Feb 2017	<b>Tutor (Problem Based Learning – MBBS)</b> , Faculty of Medicine, Nursing and Health Sciences, Monash University, Australia.
Mar 2015 to Mar 2017	<b>Teaching Associate,</b> Department of Pharmacology, Faculty of Medicine, Nursing and Health Sciences, Monash University, Australia.
Oct 2008 to Oct 2013	<b>Lecturer</b> (Department of Parasitology, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura, Sri Lanka.
Jan 2009 to Jul 2009	Intern Medical Officer - Obstetrics & Gynaecology, Base Hospital (Teaching), Gampola, Sri Lanka.
Jul 2008 to Dec 2008	Intern Medical Officer - Paediatrics, Base Hospital (Teaching), Gampola, Sri Lanka.
Jul 2007to Jun 2008	Research Associate, Wildlife Heritage Trust of Sri Lanka

#### TERTIARY EDUCATION, POSTGRADUATE STUDIES AND ADDITIONAL TRAINING

## <u>Doctor of Philosophy 2017 : Monash University, Australia</u>

Monash venom Group, Faculty of Medicine, Nursing and Health Sciences, Monash University, Australia.

Thesis: Investigation of the neuromuscular effects of snake envenoming and the role of antivenom as treatment.

Supervisors: Prof. Wayne Hodgson BSc,PhD, Grad Cert Edu (Monash University), Prof. Geoffrey Isbister BSc, MBBS, FACEM, MD (University of Newcastle), Prof. Sisira Siribaddana MBBS, MD, FCCP, FRCPEdin (Rajarata University of Sri Lanka), Dr. Sanjaya Kuruppu BSc, PhD (Monash University, Australia)

This thesis won the vice chancellor's commendation award for the thesis excellence 2017: Awarded by the Monash University for the outstanding PhD thesis of the Faculty of Medicine, Nursing and Health Sciences of the Monash University.

#### Master of Philosophy (M.Phil): 2012, University of Peradeniya, Sri Lanka.

Department of Veterinary Pathobiology, Faculty of Veterinary Medicine, University of Peradeniya

Thesis: "Comparative in-vivo toxicity of the venoms of South Asian Hump-nosed pit vipers (Genus: Hypnale).

Supervisors: Dr. Panduka Gunawardene BVSc, PhD; Prof. Indika Gawarammana MBBS, MD, MRCP, FRCPE, PhD; Prof. D.J. Weilgama BVSc, MVSc, PhD

This M.Phil thesis won the Sri Lanka National Science Foundation SUSRED award 2013 as the best M.Phil study in Medicine, Dentistry and Veterinary Sciences.

## Bachelor of Medicine, Bachelor of Surgery (MBBS): 2007, University of Peradeniya, Sri Lanka.

Faculty of Medicine, University of Peradeniya, Sri Lanka.

2<sup>nd</sup> Class honours in 3<sup>rd</sup> MBBS (Part I & II)

**Research Trainee: Mar-May 2013**: Department of Clinical Pharmacology and Toxicology, Newcastle Mater Hospital, University of Newcastle, NSW, Australia

#### **FELLOWSHIPS**

Fellow of the Royal Society of Public Health (RSPH), United Kingdom - Since October 2018

#### TEACHING EXPERIENCE AND TRAINING

Lecturing, tutoring and conducting practical classes and assessments on Medial Parasitology and Tropical medicine for MBBS students – Rajarata University of Sri Lanka since 2009.

Teaching associate for undergraduates in Pharmacology 3021, 3032 and 2022 modules of the Monash University, Aistralia (2015-2016)

Problem Based Learning tutor for the 1st year and 2nd year MBBS students of the Faculty of Medicine, Nursing and Health Sciences of the Monash University – Australia (2016)

Examiner for 1st and 2nd year clinical skills OSCEs of the summative assessments of the Monash MBBS course – Australia 2016.

Staff Development Program for teachers in Faculties of Health Sciences (July-Oct 2010): Medical Education Unit, Faculty of Medicine, University of Perdaenya.

#### **RESEARCH**

#### **Current research interests**

- Epidemiology, clinical effects and pathophysiology of snake envenoming
- Pharmacology of snake venom neurotoxins
- Seroepidemiology of toxoplasmosis in Sri Lanka
- Systematics of venomous snakes
- Systematic Ichthyology

#### **Current grants**

 Principal Investigator: Seroprevalance of toxoplasmosis in pregnant woman in Anuradhapura – Rajarata University Research Grants Rs. 830,000.00

#### Laboratory, Clinical research and Field Work Expierience

- Training on conducting Cochrane Systematic Reviews.
- Conducting clinical and epidemiological studies on tropical diseases such as snakebite.
- Laboratory tehniques
  - o Isolation and purification toxins from snake venoms.
  - in-vitro (skeletal muscle, smooth muscle, cardiac mucle, vascular preparations) and in-vivo (anaesthetised rodents) pharmaclogical preparations
  - Laboratory rodents and rabbits breeding, rearing, handling and procedures.
  - o Polyclonal antibody production and purification.
  - o Basic microscopic techniques, histological preparations and haematological staining.
  - Electrophysiological tests such as two electrode voltage clamping using ion channels expressed on oocytes.
  - Laboratory techniques including Enzyme Linked Immuno Sorbant Assay (ELISA), Western blotting, High-performance Liquid Chromatography (HPLC) techniques, SDS-PAGE electrophoresis.
  - Venomous snake rearing, handling and milking.
  - Preservation and mounting of Insects. Preservation of reptiles, freashwater fish, amphibians and mammals including bone and cartilage staining.
  - Photomicrography
- Clinical Neurophysiological Techniques: Single-fiber Elactromyography (sfEMG)
- Conducting systematic ichthyological and herpetological studies...
- Fieldwork expierience in conducting biodiversity surveys in the wild.

#### LEADERSHIP EXPIERIENCE AND TRAINING

- I was selected as one of the 20 Global Young Physician Leaders in 2013 by the Intra Academy Medical Panel (IAMP) and The World Academy of Sciences (TWAS) and followed the Young Physician Leaders Program 2013 in Berlin, Germany. My profile as a IAMP Young Physician Leader: http://www.iamp-online.org/ypl/silva-anjana
- Lecturer in the Leadership training program for university entrants in Sri Lanka since 2013
- Student Union Leader: held the positions of executive committee member, junior treasurer, vice president, president of the Medical Faculty Students' Union, University of Peradeniya during 2001-2004. This contributed to several struggles on the safeguard of student rights.
- I was a prefect of my school (Dharmasoka College, Ambalangoda- Sri Lanka).

#### **AWARDS (INTERNATIONAL)**

- Best Oral Presentation Award 2018: Awarded by the Asia Pacific Association of Medical Toxicology for the best oral presentation at the annual congress of the Asia Pacific Association of Clinical Toxicology (APAMT) 2018 16-18<sup>th</sup> November, Bali, Indonesia.
- Vice chancellor's commendation for the thesis excellence 2017: Awarded by the Monash University
  for the best PhD thesis of the Faculty of Medicine, Nursing and Health Sciences of the Monash university,
  Australia.
- Best Oral Presentation Award 2015: Awarded by the Asia Pacific Association of Medical Toxicology for the best oral presentation at the annual congress of the Asia Pacific Association of Clinical Toxicology (APAMT) 2015 – Perth, Australia.
- Outstanding Oral Presentation Award -2015: Awarded by the American Association of Clinical Toxicologists and Taylor & Francis for the best oral presentation in North American Congress of Clinical Toxicology (NACCT) 2015 - San Francisco, USA.
- Young Investigator Award 2015: Awarded by the European Association of Poison centres and Clinical Toxicologists for the best oral presentation at the annual congress of the European Association of Poison Centres and Clinical Toxicologists (EAPCCT) 2015 - St. Julians, Malta.
- Global Young Physician Leaders' award 2013 (Awarded by the Intra Academy Medical Panel and the World Academy of Sciences for 20 outstanding physician leaders in the world aged under 40 years— Berlin, Germany)

#### **AWARDS (LOCAL)**

- **Dean's Award for publications 2018:**Awarded by the Rajarata University of Sri Lanka for reserch publications published in Indexed journals.
- **Dean's Award for publications 2017**:Awarded by the Rajarata University of Sri Lanka for reserch publications published in Indexed journals.
- Preseidential Award for Scientifc Publications 2016: (Awarded by the H.E. President of Sri Lanka for the Scientic Publications – Colombo, Sri Lanka)
- **Dean's Award for publications 2016:**Awarded by the Rajarata University of Sri Lanka for reserch publications published in Indexed journals.
- Presidential Award for Scientific Publications 2014(Awarded by the H.E. President of Sri Lanka for the Scientic Publications – Colombo, Sri Lanka)
- Award for the best publication by a Physician 2014 (Awarded by the Ceylon College of Physicians) at 48<sup>th</sup> Annual Academic Sessions, Colombo, for the publication titled "Revisiting Russell's Viper (*Daboia russelii*) Bite in Sri Lanka: Is Abdominal Pain an Early Feature of Systemic Envenoming?" *PLoS ONE* 2014; 9 (2):e90198.

- TWAS / NSF Young Scientist of the Year 2013 (Biology section)

   – (Awarded by The World Academy of Sciences and National Science Foundation of Sri Lanka for the best scientist aged below 40 years from Sri Lanka in the field of biology, based on the contributions and the impact of research during previous 5 years): Colombo, Sri Lanka.
- Presidential Award for Scientific Publications 2013(Awarded by the H.E. President of Sri Lanka for the Scientic Publications – Colombo, Sri Lanka)
- NRC award for Scientific publications 2012 (Awarded by the National Research Council-Sri Lanka for the publications in 2012)
- Gold medal for best poster presentation 2012: (Awarded by the College of Forensic Pathologists
  of Sri Lanka at the 10<sup>th</sup> Annual Academic sessions of the College of Forensic Pathologists of Sri Lanka,
  2012 for the best Poster presentation. Colombo, Sri Lanka
- Presidential Award For Scientific Publications 2008 (Awarded by the H.E. President of Sri Lanka for the Scientic Publications – Colombo, Sri Lanka)
- Presidential Award For Scientific Publications 2005 (Awarded by the H.E. President of Sri Lanka for the scientific publications- Colombo, Sri Lanka)
- Award for outstanding contributions as a young scientist 2008 (Awarded by the Ministry of Social Welfare, Sri Lanka)

#### **ORATIONS**

- Anuradhapura Clinical Society Oration 2018 Anuradhapura Clinical Society: Delivered at the 12<sup>th</sup>
   Annual Scientific Conference of the Anuradhapura Clinical Society, 25<sup>th</sup> September 2018 at the Golden
   Mango Resort, Anuradhapura.
- Dr. S. Ramachandran memorial oration 2018 Sri Lanka Medical Association: Delivered at the 131<sup>st</sup>
   Anniversary International Conference of the Sri Lanka Medical Association, 29<sup>th</sup> July 2018 at the Galadari Hotel, Colombo.

#### **KEY-NOTE ADDRESSES AND INVITED TALKS (INTERNATIONAL)**

- Invited Planery speech- Toxicology and Poisons Network Australasia (TAPNA) 2019 meeting 3<sup>rd</sup>
  May 2019 Sofitel Gold Coast, Gold Coast, Australia. Topic: "Does post-synaptic neurotoxicity occur in snakebite?"
- Invited talk: 2<sup>nd</sup> International Congress of the Centre for Research in Tropical Medicine, University of Peradeniya 8<sup>th</sup> December 2017, Plant Genetic Resource Centre, Gannoruwa, Kandy, Sri Lanka. Topic: Snake venom neurotoxins and their relavance to paralysis in humans.
- Invited talk: 16<sup>th</sup> International Congress of the Asia Pacific Association of Medical Toxicology 9<sup>th</sup>
  November 2017, Hotel Grand Kandyan, Kandy, Sri Lanka. Topic: "Snake alpha neurotoxins: clinically relevant or irrelevant?"

- Invited talk: 16<sup>th</sup> International Congress of the Asia Pacific Association of Medical Toxicology 8<sup>th</sup> November 2017, Hotel Grand Kandyan, Kandy, Sri Lanka. Topic: "Understanding the role of antivenom in treating neuromuscular dysfunction in snake envenoming"
- Key-note address: 37<sup>th</sup> International congress of the European Association of Poison Centres and Clinical Toxicologists – 19<sup>th</sup> May 2017, Congress Centre, Basel, Switzerland. Topic:"Biomarkers in snake envenoming: Local data prompts broad applications"
- Invited Early Career Speaker: Australian Society for Medical Research 3<sup>rd</sup> Satellite meeting 29<sup>th</sup> April 2016 at Hunter Medical Research Institute, Newcastle, Australia. Topic: "Investigating the neuromuscular dysfunction in Sri Lankan Russell's viper envenoming."

#### **KEY-NOTE ADDRESSES AND INVITED TALKS (LOCAL)**

**Invited talk:** Anuradhapura Clinical Socuiety and Jaffna Medical Association Joint symposium – 10<sup>th</sup> April 2019, Teaching Hospital, Anuradhapura. Topic: Controvasies in managing snakebite.

**Invited talk:** Regional Meeting of the Physiological Socity of Sri Lanka – 15<sup>th</sup> March 2019, Rajarata University of Sri Lanka. Topic: Snake neurotoxins: Perfect weapons of perfect killers.

**Invited talk:** Ceylon College of Physicians – Toxicology day – 4<sup>th</sup> May 2018. CLINMarc Auditorium, National Hospital of Sri Lanka. Topic: "Antivenoms in the treatment of neurotoxic snakebite"

#### RESOURCE PERSON IN WORKSHOPS (INTERNATIONAL)

Australian Society for Clinical and Experimental Pharmacology and Toxicology (ASCEPT) Clinical Pharmacology Workshop: at the annual congress 2016: "Reality bites from bench to bedside – the latest scoop on snake bite and anti-venom research". – 27<sup>th</sup> November 2016, Melbourne Convention Centre, Melbourne, Australia.

Toxicology and Poisons Network Australasia (TAPNA) workshop at the 14<sup>th</sup> International Conference of the Asia Pacific Association of Medical Toxicology (APAMT): "Toxic Issues in Acute Care 2015" – 1<sup>st</sup> December 2015 – University of Western Australia, Perth, Australia.

#### CONTRIBUTIONS TO PROFESSIONAL BODIES AND ACADEMIC JOURNALS

#### Memberships in Professional Associations

- Young Scientists Forum, National Science and Technology Commission, Sri Lanka
- Sri Lanka Association for Laboratory Animal Scientists
- Snakebite expert committee Sri Lanka Sri Lanka Medical Association
- Viper specialist group of the Species Survival Commission (SSC) of International Union for Conservation of Nature (IUCN)
- Sri Lanka Association of Laboratory Animal Scientists, Sri Lanka.
- Ethics review Committee, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Since January, 2012

#### **Journal Editorial Boards**

- Editorial board member: Anuradhapura Medical Journal
- Editorial board member: Journal of Rajarata University of Sri Lanka

#### Reviewer to the Journals

- British Medical Journal (BMJ)
- PLoS Neglected Tropical Diseases
- Scientific reports (*Nature publ.*)
- Frontiers in Immunology
- Clinical Toxicology
- Toxins
- Molecules
- American Journal of Tropical Medicine and Hygiene
- Toxicon
- Biochemica et Biophysica Acta (General Subjects)
- Journal of Pharmacological and Toxicological Methods
- Journal of Occupational Medicine and Toxicology
- Journal of Infection and Public Health

- Toxicology Communications
- Toxicology Reports
- Heliyon
- International Health
- BMJ Case Reports
- Zootaxa
- Copeia
- Journal of medical case reports
- Journal of Threatned Taxa
- Yonsei Medical Journal
- Ceylon Journal of Science
- Anuradhapura Medical Journal
- Sri Lanka Journal of Medicine

#### DISCOVERY OF SPECIES NEW TO SCIENCE (FRESHWATER FISH AND REPTILES)

Laubuca insularis	(Family: Cyprinidae) 2008	Puntius kamalika	(Family: Cyprinidae) 2008
Laubuca ruhuna	(Family: Cyprinidae) 2008	Puntius kelumi	(Family: Cyprinidae) 2009
Laubuca waruna	(Family: Cyprinidae) 2008	Rasbora armitagei	(Family: Cyprinidae) 2010
Mystus ankutta	(Family: Bagriidae) 2009	Rasbora naggsi	(Family: Cyprinidae) 2010
Pethiya reval	(Family: Cyprinidae) 2008	Otocryptis nigristigma	(Family: Agamidae) 2005

#### **EXAMINER FOR HIGHER DEGREES BY RESEARCH**

Candidate: AMR Adhikari

Degree: M.Phil

Thesis title: "Development of a treatment protocol for management of snakebite envenomation in dogs in Sri Lanka"; submitted to

the Faculty of Veterinary Medicine and Animal Sciences, University of Peradeniya, April 2017.

Candidate: Indira Rathnayake

Degree: M.Phil

Thesis title "Assessment of new and established haematological and renal biomarkers in Russell's viper envenoming" submitted to

the Faculty of Medicine, University of Peradeniya.

#### **VOLUNTEER WORK**

- Selection interviewer for the admission of candidates for Bachelor of Medical Science and Doctor of Medicine (MD), Physiotherapy (Honours) and Radiography and Medical Imaging (Honours) in Monash University, Australia 2017
- Volunteer for Monash open day 2015.
- Resource person for the public awareness program for snakebite prevention in Anuradhapura district, funded by the Biodiversity Secretariat, Ministry of Environment and Natural Resources, Sri Lanka during 2007-2008.

 Conduting free health camps for the benefit of villagers of the bordering villages of Knuckles forest world heritage site, through the Professionals' Association for Conservation of Knuckles Forest. Through this program, the villagers are educated on modification of their harmful behaviors towards Knuckles ecosystem.

#### **MEDIA**

Interviewed and contributed to the documentary program 'Bugs, bites and Parasites' of the Discovery Channell, UK - 2014

#### TRAVEL GRANTS / SCHOLARSHIPS

- 2016 Monash University Postgraduate Travel Grants AUD 1035 to attend the Annual Congress of the Asia Pacific Association of Medical Toxicology 2016.
- 2014 Monash Graduate Scholarship (MGS) and Monash International Postgraduate Research Scholarship (MIPRS) to cover tuition fee (AUD 170,173), living stipend (AUD 25849 per annum) and overseas student health cover for the family for PhD study at the Monash University, Australia.
- Travel scolarship to attend the Young Physician Leaders program 2013 and the World Health Summit 2013: Berlin, Germany, 17th- 22nd October 2013.
- 2011 *In-vivo* toxicity of the venoms of Hump-nosed pit vipers. Rajarata University of Sri Lanka (Grant amount: Rs. 100,000/=)
- Travel scholarship to paticipate for the 10<sup>th</sup> International Scientific Congress of the Asia Pacific Association for Clinical Toxicology, Penang, Malaysia. 11<sup>th</sup>-14<sup>th</sup> November 2011.(grant amount: USD 1250

#### **PUBLICATIONS: THESIS**

- **2017 Silva, Anjana**. Investigation of the neuromuscular effects of snake envenoming and the role of antivenom as treatment. Monash University, Australia. July 2017 [*PhD thesis*]
- **Silva, Anjana.** Comparative *in-vivo* toxicity of venoms from South Asian hump-nosed pit vipers (Genus: *Hypnale*). University of Peradeniya, August, 2012 [*M.Phil thesis*]

# PUBLICATIONS: JOURNAL ARTICLES (44 articles; *h* index:15)

**2019** Waiddyanatha S, <u>Silva A</u>, Siribaddana S, Isbister GK. Long term effects of snake envenoming. *Toxins* 2019; 11:193

Kumara H, Seneviratne N, Jayaratne DS, Siribaddana S, Isbister GK, <u>Silva A</u>. Severe coagulopathy in Merrem's hump-nosed pit viper (*Hypnale hypnale*) envenoming unresponsive to fresh frozen plasma: A case report. *Toxicon* 2019; doi: 10.1016/j.toxicon.2019.03.015.

- <u>Silva A</u>, Sedgwick EM, Weerawansa P, Pilapitiya S, Weerasinghe V, Buckley N, Siribaddana S & Isbister GK. Neuromuscular dysfunction after envenoming by Merrem's hump-nosed pit viper (*Hypnale hypnale*), *Toxicology Communications* 2019, 3:1, 23-28, DOI: 10.1080/24734306.2018.1560991
- **Silva A**, Cristofu-Armstrong B, Rash LD, Hodgson W, Isbister GK. Defining the role of  $\alpha$ -neurotoxins in paralysis due to snake envenoming in humans. *Cellular and Molecular Life Sciences* 2018; DOI: 10.1007/s00018-018-2893-x.

- Isbister GK, <u>Silva A</u>. Addressing the global challenge of snake envenoming. *Lancet* 2018; DOI: https://doi.org/10.1016/S0140-6736(18)31328-X.
- De Silva PUT, Sarathchandra C, Senanayake H, Pilapitiya S, Siribaddana S, <u>Silva A</u>. Hyponatraemia and seizures in Merrem's Hump-nosed pit viper (*Hypnale hypnale*) envenoming: a case report. *Journal of Medical Case Reports* 2018; DOI: 10.1186/s13256-018-1756-2.
- **Silva A**, Hodgson WC, Isbister GK. Antivenom for neuromuscular paralysis resulting from snake envenoming. *Toxins* 2017; 9(4): 143.
  - <u>Silva A</u>, Maduwage K, Buckley NA, Lalloo DG, de Silva HJ, Isbister GK. Antivenom for snake venom-induced neuromuscular paralysis (Protocol). *Cochrane Database of Systematic Reviews* 2017, Issue 3. Art. No.: CD012604. DOI: 10.1002/14651858.CD012604.
  - <u>Silva A</u>, Kuruppu S, Othman I, Goode RJ, Hodgson WC, Isbister GK. Neurotoxicity in Sri Lankan Russell's Viper (Daboia russelli) Envenoming is Primarily due to U1-viperitoxin-Dr1a, a Pre-Synaptic Neurotoxin. *Nerurotox Res.* 2017; DOI 10.1007/s12640-016-9650-4
- **2016** Silva A, Johnston CJ, Kuruppu S, Kniesz D, Maduwage K, Kleifield, O, Smith I, Siribaddana S, Buckley N, Hodgson WC, Isbister GK. Clinical and Pharmacological Investigation of Myotoxicity in Sri Lankan Russell's Viper (Daboia russellii) Envenoming. PLoS Negl Trop Dis. 2016;10 (12): e0005172
  - <u>Silva A</u>, Hodgson WC, Isbister GK. Cross-Neutralisation of In Vitro Neurotoxicity of Asian and Australian Snake Neurotoxins and Venoms by Different Antivenoms. *Toxins (Basel)*. 2016;8(10). pii: E302.
  - Kularatne SA, Weerakoon K, <u>Silva A</u>, Maduwage K, Walathara C, Rathnayake I, Medagedara S, Paranagama R, Mendis S, Kumarasiri PV. Efficacy of intravenous hydrocortisone administered 2-4 h prior to antivenom as prophylaxis against adverse drug reactions to snake antivenom in Sri Lanka: An open labelled randomized controlled trial. *Toxicon* 2016; 120:159-65.
  - Maduwage K, <u>Silva A</u>, O'Leary M, Hodgson WC, Isbister GK. Efficacy of Indian polyvalent snake antivenoms against Sri Lankan snake venoms: lethality studies or clinically focussed in vitro studies. *Sci. Rep.* 2016, 6: 26778; doi: 10.1038/srep26778 (2016).
  - Maduwage KP, O'Leary MA, **Silva A**, Isbister GK. Detection of Snake Venom in Post-Antivenom Samples by Dissociation Treatment Followed by Enzyme Immunoassay. *Toxins (Basel)* 2016; 8: 130
  - <u>Silva A</u>, Maduwage K, Sedgwick M, Pilapitiya S, Weerawansa P, Dahanayaka NJ, Buckley NA, Siribaddana S, Isbister GK. Neurotoxicity in Russell's viper (*Daboia russelii*) envenoming in Sri Lanka: a clinical and neurophysiological study. *Clin Toxicol (Phila*). 2016 Jun;54(5):411-9.
  - <u>Silva A</u>, Maduwage K, Sedgwick M, Pilapitiya S, Weerawansa P, Dahanayaka NJ, Buckley NA, Johnston C, Siribaddana S, Isbister GK. Neuromuscular Effects of Common Krait (*Bungarus caeruleus*) Envenoming in Sri Lanka. *PLoS Negl Trop Dis*. 2016;10(2):e0004368.
- **2014 Silva A,** Hifumi T, Sakai A, Yamamoto A, Murakawa M, Ato M, Shibayama K, Ginnaga A, Kato H, Koido Y, Inoue J, Abe Y, Kawakita K, Hagiike M, Kuroda Y. *Rhabdophis tigrinus* is not a pit viper but its bites result in venominduced consumptive coagulopathy similar to many viper bites. *J Intensive Care* 2014 Jul 31;2(1):43.
  - **Silva A**, Samarasinghe R, Pilapitiya S, Dahanayake N, Siribaddana S. Viper bites complicate chronic agrochemical nephropathy in rural Sri Lanka. *J Venom Anim Toxins Incl Trop Dis* 2014;20:33.
  - Giles ML, Vincent FB, Volkenstein S, Shefin SM, **Silva A**, Fredrick F; Young Physician Leadership Group 2013. What has the Young Physician Leaders Programme achieved? *Lancet* 2014;384(9937):26-7.
  - **Silva A**, Marikar F, Murugananthan A, Agampodi S. Awareness and perceptions on prevention, first aid and treatment of Snake bites among Sri Lankan farmers: A knowledge practice mismatch? *J Occuational Med Toxicol* 2014; 9: 20.

- <u>Silva A</u>, Weilgama D, Gawarammana I, Gunawardena P. Venoms of South Asian hump-nosed pit vipers (Genus: *Hypnale*) cause muscarinic effects in BALB/c mice. *Anuradhapura Med J* 2014; 8 (1): 13-15.
- Kularatne SAM, <u>Silva A</u>, Weerakoon KGAD, Maduwage K, Walathara C, Mendis S, Paranagama R.Revisiting Russell's viper (*Daboia russelii*) bite in Sri Lanka: Is abdominal pain an early feature of systemic envenoming? *PLoS ONE* 2014; 9 (2):e90198.
- Kularatne SAM, <u>Silva A</u>, Maduwage K, Ratnayake I, Walathara C, Mendis S, Pranagama R. Victims' response to snakebite and socio-epidemiological factors of 1018 snakebites in a tertiary carehospital in Sri Lanka. *Wilderness and Environmental Medicine* 2014; 25: 35-40
- 2013 Kanapathy G, Peiris LB, Goodacre S, <u>Silva A</u>, Jude P, Surendran S. Molecular identification of potential leishmaniasis vector species within the *Phlebotomus*(*Euphlebotomus*) argentipes species complex in Sri Lanka. *Parasites and Vectors* 2013; 6:302.
  - <u>Silva A.</u> Dangerous snakes, deadly snakes and medically important snakes. *Journal of Venomous Animals and Toxins including Tropical Diseases* 2013; 19:26.
  - <u>Silva A</u>, Gamlaksha D, Waiddyaratne D. Medico-legal significance of the identification of offending snake in a fatal snake bite: a case report. *Journal of Forensic and Legal Medicine* 2013; 20 (8): 965-967
  - <u>Silva A</u>, Weerawansa P, Pilapitiya S, Maduwage T, Siribaddana S. First authenticated report of Sri Lankan Flying Snake (*Chrysopelea taprobanica*) bite. *Wilderness and Environmental Medicine* 2013; 24(3): 273-6
  - Maduwage K, Scorgie F, <u>Silva A</u>, Shahmy S, Mohamed F, Abeysinghe C, Karunathilake H, Lincz L, Ariaratnam A, Isbister GK. Hump-nosed pit viper (*Hypnale hypnale*) envenoming causes mild coagulopathy with incomplete clotting factor consumption. *Clinical Toxicology* 2014;51(7):527-31
  - Maduwage K, Isbister GK, <u>Silva A</u>, Bowatta S, Mendis S, Gawarammana I. Epidemiology and clinical effects of Hump-nosed pit viper (Genus: *Hypnale*) envenoming in Sri Lanka, *Toxicon* 2013;61:11-15.
- 2012 Maduwage K, Silva A. Hemipeneal morphology of Sri Lankan Dragon lizards (Sauria: Agamidae), Ceylon Journal of Science (Bio. Sci.) 2012;41 (2): 111-123
  - <u>Silva A</u>, Pilapitiya S, Siribaddana S. Acute Myocardial Infarction following a possible direct intravenous bite of Russell's viper (*Daboia russelli*).*BMC Research Notes* 2012; 5:500
  - <u>Silva A</u>, Gunawardena P, Weilgama D, Maduwage K, Gawarammana I.Comparative *in-vivo* toxicity of venoms from South Asian hump-nosed pit vipers (Viperidae: Crotalinae: *Hypnale*).*BMC Research notes* 2012; 5:471
- **Silva A**, Maduwage K, Pethiyagoda R. A review of the genus *Rasbora* in Sri Lanka, with description of two new species (Teleostei: Cyprinidae). *Ichthyological Exploration of Freshwaters* 2010; 21(1):27-50.
- **2009** Maduwage K, <u>Silva A</u>, Manamendra-Arachchi K, Pethiyagoda R. A taxonomic revision of the South Asian humpnosed vipers (Squamata: Viperidae: Crotalinae: Hypnale), *Zootaxa* 2009; 2232: 1-28
- **2008** Maduwage K, Meegaskumbura M, <u>Silva A</u>, Pethiyagoda R. Phylogenetic implications of hemipenial morphology in Sri Lankan Agamid lizards, *Current Science* 2008; 95 (7): 838-840.
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#### PUBLICATIONS: SELECTED IMPORTANT CONFERENCE PAPERS AND ABSTRACTS

- **Silva A,** Sedgwick M, Siribaddana S, Isbister GK. Sub-clinical neuromuscular dysfunction after envenoming by Merrem's hump-nosed pit viper (Hypnale hypnale). [Oral presentation at the 17<sup>th</sup> International Scientific Conference of the Asia Pacific Association of Medical Toxicology, Bali, Indonesia, 16-18 November 2018] **Won the best oral presentation award** 
  - **Silva A**, Sarathchandra C, Senanayake H, Weerawansa P, Siribaddana S, Isbister G. Capillary blood clotting time in detecting venom-induced consumption coagulopathy (VICC). *Clinical Toxicology* 2018; DOI: https://doi.org/10.1080/15563650.2018.1506610 [Oral platform presentation at the 50th Anniversary North American Congress of Clinical Toxicology, Hyatt Regency Hotel, Chicago, IL, USA, 28th Oct 2018]
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- 2016 Huynh TM, Silva A, Isbister GK, Hodgson WC, Kuruppu S. A pharmacological exploration of the in vitro neurotoxicity of king cobra (*Ophiophagus hannah*) venom. Oral presentation at the annual conference of the Australian Society for Clinical and Experimental Pharmacology and Toxicology (ASCEPT) 2016 27<sup>th</sup> November 2016, Melbourne, Australia.
  - Ragavan R, Kemp-Harper B, **Silva A**, Kuruppu S, Isbister GK, Hodgson WC. Cardiovascular collapse induced by *Echis ocellatus* venom: an in vivo and in vitro examination. Poster presentation at the annual conference of the Australian Society for Clinical and Experimental Pharmacology and Toxicology (ASCEPT) 2016 27<sup>th</sup> November 2016, Melbourne, Australia.
  - Silva, A, Scorgie F, Lincz L, Siribaddana S, Isbister GL. Recovery of Venom Induced Consumption Coagulopathy (VICC) in Russell's viper (Daboia russelli) envenoming: Does antivenom play a role? [Oral

- presentation at the 15<sup>th</sup> International Scientific Conference of the Asia Pacific Association of Medical Toxicology. Singapore.19<sup>th</sup>-21<sup>st</sup> November 2016.]
- **Silva A.,** Hodgson WC, Isbister GKI. Universal antivenoms? Ability of Australian and Asian antivenoms to cross neutralise different neurotoxins. Toxicology and Poisons Network Australasia conference, Brisbane, Australia. 4<sup>th</sup> 6<sup>th</sup> May, 2016 [oral presentation]
- Johnston CJ, **Silva A**, Siribaddana S, Ryan NM, Maduwage K, Isbister GK. Sri Lankan Russell's viper envenoming causes mild myotoxicity. Clinical Toxicology 2016; 54:480. [Poster presentation at the XXXVI th annual congress of the European association of poison centers and clinical toxicology, Madrid, Spain, 25-27 May, 2016.
- **Silva A.**, Kneisz D, Kuruppu S, Hodgson WC, Isbister GKI. Pharmacological characterization of the major neurotoxin and myotoxin from Sri Lankan Russell's viper (*Daboia russelii*) venom. [Oral presentation at the 14<sup>th</sup> International Scientific Conference of the Asia Pacific Association of Medical Toxicology, Perth, Australia, 2-4 December 2015] **Won the best oral presentation award** 
  - **Silva A**, Maduwage K, Siribaddana S, Isbister GK. Adult snakebite patients admitted to a tertiary care centre: A cohort study. [Poster presentation at the 14<sup>th</sup> International Scientific Conference of the Asia Pacific Association of Medical Toxicology, Perth, Australia, 2-4 December 2015]
  - **Silva A.,** Siribaddana S, Sedgwick ME, Maduwage K, Kuruppu, S, Buckley N, Hodgson WC, Isbister GKI. Neurotoxicity due to Sri Lankan Russell's viper envenomation is caused by a weak presynaptic neurotoxin. Clin Toxicol 2015; 53: 640. [Oral presentation at the 2015 Annual meeting of the North American congress of Clinical Toxicology, San Francisco, USA, 9-12 October 2015.] **Won the Outstanding Oral Presentation award**
  - **Silva A.,** Siribaddana S, Sedgwick ME, Maduwage K, Buckley N, Isbister GKI. Indian Krait (*Bungarus caeruleus*) envenoming: A clinical and neurophysiological investigation of neuromuscular dysfunction. Clin Toxicology 2015; 53 (4): 352-353. [oral presentation at the XXXVth annual congress of the European association of poison centres and clinical toxicology, St. Julian's, Malta, 26-29 May, 2015] **Won the young investigator award**
- **2014 Silva A**, Segdwick E, Isbister GK, Siribaddana S. Normal stimulated single fiber EMG jitter values from Orbicularis Oculi. In: Autumn meeting of the British Society for Clinical Neurophysiology, London. 2014.
- **2013 Silva A.,** Maduwage, K., O'Leary, M., Weilgama, D.J., Isbister, G.K. Development of rabbit polyclonal antibodies against snake venoms in a resource poor setting. Toxicology and Poisons Network Australasia conference, Newcastle, NSW, Australia. 2<sup>nd</sup>-4<sup>th</sup> May, 2013 [oral presentation]
  - **Silva, A.**, Weilgama, D.J., Gawarammana, I. and Gunawardena, P. South Asian hump-nosed pit viper venoms (Genus: *Hypnale*) cause muscarinic effects in BALB/c mice. The 3<sup>rd</sup>Annual Research Sessions of the Rajarata University of Sri Lanka, 7<sup>th</sup>February 2013, Mihintale, Sri Lanka [oral presentation]
- **Silva, A.**, Gamlaksha, D. S. and Waidyaratne, D. L. (2012). Importance of accurate identification of the species in a death due to snake bite: a case report. Proceedings of 10<sup>th</sup> Annual Academic sessions of the College of Forensic Pathologists of Sri Lanka, 57, 25<sup>th</sup> February, 2012, Colombo, Sri Lanka [Poster presentation]- **Won the gold medal for best poster presentation**
- **Silva, A.**, Gunawardena, P., Weilgama, D.J., Gawarammana, I. and Maduwage, K. Comparison of the *in-vivo* nephrotoxicity of the venoms of South Asian hump-nosed pit vipers. 149–152. The 2<sup>nd</sup> Annual Research Sessions of the Rajarata University of Sri Lanka, 30<sup>th</sup> November 2011, Mihintale, Sri Lanka [oral presentation]
- **Silva, A.**, Gunawardena, P., Maduwage, K., Gawarammana, I. and Weilgama, D.J. Comparative *in-vivo* toxicity of the venoms of South Asian hump-nosed pit vipers. 64–65. The 10<sup>th</sup> Scientific congress of the Asia-Pacific Association for Medical Toxicology, 13<sup>th</sup> November 2011, Penang, Malaysia [oral presentation] **Won a full travel award**

- Maduwage, K., **Silva, A.**, Bowatta, S., Mendis, S. and Gawarammana, I. Hump-nosed pit viper (Genus: *Hypnale*)envenoming in Sri Lanka: A study of epidemiology and clinical profiles across species. The 10<sup>th</sup> Scientific congress of the Asia-Pacific Association for Medical Toxicology, 13<sup>th</sup> November 2011, Penang, Malaysia [Poster presentation]
- **Silva, A.** And Agampodi, S. B. Impact of disease burden on the research output of some tropical diseases and snakebites in Sri Lanka. Proceedings of the 1<sup>st</sup> Annual research symposium of the Rajarata University of Sri Lanka, Saliyapura, Sri Lanka, 28<sup>th</sup> October, 2010, 64-66.[oral presentation].

#### **REFERENCE**

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