



PROGRAMME

Monday 8th July

4:00 Registration opens at Fort Camp Lounge, Gage Residence building.

Tuesday 9th July

9:00 Opening ceremonies

9:30 Revisiting the taxonomy and evolution of pathogenicity of the genus *Leptospira* through the prism of genomics

Mathieu Picardeau

10:00 Proposal of the photo-responsive clade in the genus *Leptospira*

Shuichi Nakamura

10:15 Unveiling proteomics insights for potential vaccine candidate against leptospirosis via interactome, network theory and immunoinformatics

Jayashankar Das

10:30 **Coffee**

11:00 Innate immune memory through TLR2 and NOD2 contributes to control of *Leptospira interrogans* infection

Catherine Werts

11:15 Characterization of two putative High Temperature Requirement A (HtrA)-like proteins LIC11112 and LIC20143 of *Leptospira interrogans* serovar Copenhageni and possible implications in pathogenesis

Brenda Daroz

11:30 Targeted and complete gene silencing in *Leptospira biflexa* by RNA-guided catalytically inactive Cas9 (dCas9)

Luis Guilherme Virgilio Fernandes

11:45 *Leptospira biflexa* Expressing LIC11711 of *Leptospira interrogans* Shows Increase Binding Ability to Laminin and Plasminogen

Leandro Kochi

12:00 Analysis of Adhesion and Crawling Motility of *Leptospira* on the Animal Cell Monolayers

Jun Xu

12:15 **Lunch**

1:15 Evaluation of Leptospiral Major Outer Membrane Proteins Over-expression and Solubility Improvement Using Small Ubiquitin-like Modifier (SUMO) Fusion System

Maria Beatriz Takahashi

- 1:30 Identification and Characterization of the Cyclic di-AMP binding Potassium Uptake System Ktr in *Leptospira interrogans*
Weilin Hu
- 1:45 Identification and Pathway Analysis of Upregulated Genes in Acute Leptospirosis
Maragaille Capiroso
- 2:00 Cloning, Expression and Purification of a Leptospiral Protein Containing RGD Motif
Maria Fernanda Cavenague
- 2:15 **Coffee and Poster Session 1 (odd numbers)**
- 3:45 ILS Board Meeting

Wednesday 10th July

- 9:00 Deep One Health – An evolving approach
Craig Stephen
- 9:30 *Leptospira* spp in freshwater collections from Portugal: New challenges
Maria Fernandes
- 9:45 Survival Time of *Leptospira kirschneri* serovar Grippytyphosa on Strawberries
Duygu Emirhar
- 10:00 Microbiology and ecology of environmental leptospirosis in New Caledonia
Emilie Bierque
- 10:15 A Divergent Lineage of Pathogenic *Leptospira* spp. may be Present, and Ecologically Maintained, in the Environment in Puerto Rico
Nathan Stone
- 10:30 **Coffee**
- 11:00 Epidemiology of Leptospirosis in Uganda - Starting from Scratch
Anou Dreyfus
- 11:15 Merits and limitations of sequencing methods in the eco-epidemiology of *Leptospira*
Marie Moinet
- 11:30 Cytokine signature as a predictor of leptospirosis clinical manifestations
Indika Senavirathna
- 11:45 Complement Factor H Polymorphisms in Leptospirosis Patients
Lourdes Isaac
- 12:00 Leptospirosis Chronic Kidney Disease: Understanding the Secondary Injury Mechanism
Chih-Wei Yang
- 12:15 When and What to Test for: A Cost-Effectiveness Analysis of Test-and-Treat Strategies for Undifferentiated Febrile Illness in the Era of Responsible Antibiotic Use
Claudia Munoz-Zanzi
- 12:30 **Lunch**
- 1:30 **Poster Session 2 (even numbers)**
- 3:00 **Coffee**
- 3:30 Taxonomic Sub-Committee Meeting

Thursday 11th July

- 9:00 Leptospirosis in domestic animals: applying the health approach to improve outcomes for everyone
Catherine Lapointe
- 9:30 Demonstration of cross-protection of EURICAN Lmulti against *Leptospira interrogans* serovar Copenhageni in an acute leptospirosis dog challenge model
Lionel Cupillard
- 9:45 Clinical Efficacy of Enro-C in Dogs with Leptospirosis
Hector Sumano
- 10:00 A Descriptive Analysis of Leptospiral Vaccination Practices within the New Zealand Dairy Industry
Julie Collins-Emerson
- 10:15 Study on diagnostic accuracy to detect pathogenic leptospiras as a cause of abortions in dairy cattle
Miguel Salgado
- 10:30 **Coffee**
- 11:00 Novel Adjuvants Enhance IL17 and Cell Mediated Bovine Immune Responses to *Leptospira* Bacterin
Jennifer Wilson-Welder
- 11:15 Sequence Type 17 is the More Frequent Genotype Observed in Dairy Cattle With Different Pattern of Shedding, in Southern Chile
Gustavo Monti
- 11:30 Is There an Intraocular Biofilm Production in Horses Suffering from Recurrent Leptospiral Uveitis?
Bettina Wollanke
- 11:45 Elucidating the Ecology of *Leptospira interrogans* in Urban Norway Rats (*Rattus norvegicus*)
Chelsea Himsworth
- 12:00 *secY* gene fragment sequencing of *Leptospira* detected in patients hospitalized with fever and phylogenetic comparison with *Leptospira* detected from animals in Tanzania
Renee Galloway
- 12:15 **Lunch**
- 1:15 Surveillance of Leptospirosis Among Animals In Iloilo Province, Philippines
Sharon Yvette Angelina Villanueva
- 1:30 Unintended Consequences: Impacts of a Pest Control Intervention on *Leptospira* Prevalence Among Urban Norway Rats (*Rattus norvegicus*)
Kaylee Byers
- 1:45 Pathogenic *Leptospira* spp. Isolated and Detected in Reproductive Organs of Wild Boars (*Sus scrofa*) Hunted in Italy
Giovanni Cilia
- 2:00 Leptospirosis in the Channel Island Fox: A Long-Term Study to Assess the Origin, Spread and Impact of *Leptospira interrogans* serovar Pomona in an Endangered Island Fox Population
James Lloyd-Smith
- 2:15 Fade-Out and Re-Emergence of *Leptospira interrogans* Serovar Pomona in a Wildlife Reservoir Host – California Sea Lions (*Zalophus californianus*)
Katherine Prager
- 2:30 **Coffee and Poster Session 3 (odd numbers)**
- 3:45 ILS Annual General Meeting

Friday 12th July

- 9:00 Risks for hospitalisation of leptospirosis cases in New Zealand – infecting serovar and ethnicity
Jackie Benschop
- 9:15 Post-Hurricane Leptospirosis in Puerto Rico and the U.S. Virgin Islands, 2017
Ilana Schafer
- 9:30 Leptospirosis in Côte d'Ivoire
K Stephane Koffi
- 9:45 An Outbreak of Fatal Leptospirosis in a Rural Community of Bangladesh
Quazi Zaki
- 10:00 Long-term changes of human exposure to *Leptospira* in New Zealand
Cord Heuer
- 10:15 Microgeographical difference of leptospirosis in Sri Lanka
Janith Warnasekara
- 10:30 **Coffee**
- 11:00 Human Leptospirosis circulation in Vietnam
Mai Le
- 11:15 Determinant Factors of Leptospirosis in Indonesia: Flood Prone Area Setting in Wajo District
Syamsuar Manyullei
- 11:30 Use of Quantitative PCR to Detect Lower Level of Leptospiraemia: Improving the Sensitivity and Validity
Shalka Srimantha
- 11:45 Improved Molecular Detection of Diverse New Zealand *Leptospira*
Shahista Nisa
- 12:00 Performance of LipL32 Real Time PCR in Blood for the Detection of Pathogenic *Leptospira* in an Endemic Setting
Yasindu Waniganayake
- 12:15 Evaluation of Combined Rapid Immunoglobulin M and Immunoglobulin G Lateral Flow Assays for the Diagnosis of Leptospirosis, Scrub Typhus, and Hantavirus Infection
Yupin Suputtamongkol
- 12:30 Detection of Pathogenic *Leptospira* spp in Sputum of Patient with Leptospirosis Pulmonary Hemorrhagic Syndrome
Farida Dwi Handayani
- 12:45 **Lunch**
- 1:45 **Poster Session 2 (even numbers)**
- 3:00 **Coffee**
- 3:30 Closing Ceremony

Posters Tuesday 9th and Wednesday 10th July

1. Anti-*Leptospira* Immunoglobulins Profiles in Mice after Infection with Live Leptospire or Vaccines
Frédérique Vernel-Pauillac
2. TLR- and NLR-based Host Directed Strategies to Fight Acute Leptospirosis
Frédérique Vernel-Pauillac
3. Understanding the clinical profile of Leptospirosis for surveillance
Janith Warnasekara
4. Use of diagnostic tests for Leptospirosis; a comparative study of quantitative PCR and Microscopic agglutination test (MAT)
Janith Warnasekara
5. Use of Real Time PCR in Human Urine Samples for the Detection of Pathogenic *Leptospira* during Early Disease
Yasindu Waniganayake
6. Validation of Real Time PCR Technique in Human Urine Samples for Detection of Pathogenic *Leptospira*
Yasindu Waniganayake
7. In Vitro Evaluation of Marine Sediment-Derived Actinobacteria Against Two Dominantly Circulating *Leptospira* Serovars in the Philippines
Sharon Yvette Angelina M. Villanueva
8. Identification of CD4+T-cell epitopes on Lsa46 and Lsa77 leptospiral proteins as vaccine targets
Aline F Teixeira
9. Detection of secreted adenyl cyclase by *Leptospira* spp. isolated from humans and animals
Robyn A. Stoddard
10. Development of Machine Learning Algorithm Model to Predict Leptospirosis Diagnosis in Dogs from Hematologic, Serum Biochemical and Urinalysis Results
Krystle L. Reagan
11. Surface Proteomics of *Leptospira interrogans* serovar Pomona to Search for Novel Vaccine Candidates
Kanitha Patarakul
12. The Role of a Reference Laboratory: Routine Diagnosis of Leptospirosis and Development of Control and Surveillance Programs in Portugal (2009-2018)
Teresa Carreira
13. Characterization of a Novel Surface Protein of *Leptospira interrogans* which Binds to Calcium and Interacts with Host Components
Felipe José Passalia
14. Serological Diagnosis of Leptospirosis in British Columbia: A Laboratory Perspective
Jonathan Laley
15. Early Immune Response Modulation of Leptospiral Outer Membrane Protein LipL32 Infection by Narrow Band Middle Infrared Stimulation
Yi-Ching Ko
16. Importance of the Complement System pathways on the elimination of different strains of non-pathogenic and pathogenic *Leptospira*
Lourdes Isaac
17. Inhibitory effect of human beta defensin 2 on leptospiral induced immune response in human monocyte cell line
Naharuthai Inthasin

18. Structure Base of Leptospiral Leucine Rich Repeat 20 (LRR20) Induces Neutrophil Gelatinase-associated Lipocalin (NGAL) Expression through E-Cadherin
Shen-Hsing Hsu
19. Phylogenetic and Genetic Diversity of *Leptospira* Using MLST Method : Study on Severe Leptospirosis Cases in Indonesia
Farida Dwi Handayani
20. Immunoassays for the Serodiagnosis of Human Leptospirosis
Elsa Fortes-Gabriel
21. Core Genome Multi-locus Sequence Typing: A Powerful Tool for Surveillance and Epidemiology of Leptospirosis
Linda Grillova
22. Enolase as a Diagnostic Target for Leptospirosis
Renee L. Galloway
23. Toll Like Receptor 2 Mediated Induction of Human Beta-Defensin 2 by *Leptospira interrogans* in Human Kidney Cells
Pattama Ekpo
24. Investigations of *Leptospira*-Endothelial Cell Interactions
Jenifer Coburn
25. *Leptospira* Infection Induces Transcriptome Profiles in Polarized Murine Macrophages
Li-Fang Chou
26. Functional Characterization of Pappalysin-1 Domain Protein from *Leptospira interrogans*: a Secreted Metalloprotease with a Broad-spectrum of Activity
Angela S. Barbosa
27. Development of immunochromatographic test kit for diagnosis of acute leptospirosis
Patimaporn Wongprompitak
28. SNAP-Lepto® – a Useful Screening Method for Diagnosing Leptospiral Uveitis with Equine Serum
Bettina Wollanke
29. Surveillance of Leptospirosis Antibodies in Canines in Haiti, 2016
Aaron Villarma
30. Serological Surveillance of Canine Leptospirosis in Lima – Peru
Juan Siuce
31. Assessment of within-herd transmission of pathogenic *Leptospira* by a structured-Age Multi Host model
Gustavo Monti
32. Leptospire in the big city: a multi-year survey of pathogenic *Leptospira* in terrestrial wildlife of Los Angeles, California
Sarah Helman
33. Leptospirosis in Alaskan caribou (*Rangifer tarandus granti*) and reindeer (*Rangifer tarandus tarandus*)
Cristina M. Hansen
34. Detection of Pathogenic Leptospire in South American Camelids (SACs)
Bibiana Brihuega
35. First isolation of *Leptospira* spp. from rodents captured in country of Georgia
Nazibrolo Chitadze

Posters Thursday 11th and Friday 12th July

1. An Artificial Intelligence Approach Towards a Computer-Aided Microscopic Agglutination Test
Ryo Ozuru
2. Concomitant leptospirosis and dengue infection in selected hospitals in the Western Province
P. S. M. J. U. Samarakoon
3. Cytokine signature as a predictor of leptospirosis clinical manifestations
Indika Senavirathna
4. Epigenetic Regulation and Virulence of *Leptospira interrogans*
Mathieu Picardeau
5. Evaluation of Combined Rapid Immunoglobulin M and Immunoglobulin G Lateral Flow Assays for the Diagnosis of Leptospirosis, Scrub Typhus, and Hantavirus Infection
Yupin Suputtamongkol
6. Identification and Characterization of the Cyclic di-AMP binding Potassium Uptake System Ktr in *Leptospira interrogans*
Wei-Lin Hu
7. Inflammatory Reaction Induced by Hemolysin Sph2 of *Leptospira interrogans* Through NLRP3 Inflammasomal Activation
Kai-Xuan Li
8. Innate Immune Memory through TLR2 and NOD2 Contributes to the Control of *Leptospira interrogans* Infection
Catherine Werts
9. Investigating cross-species transmission of *Leptospira interrogans* in coastal California mammals using genome sequence analysis
Riley O. Mumma
10. *Leptospira* spp in Freshwater Collections from Portugal: New Challenges
Maria Fernandes
11. Less diversity of *Leptospira* species isolated from environmental water than those from soil in Japan
Toshiyuki Masuzawa
12. Merits and limitations of sequencing methods in the eco-epidemiology of *Leptospira*
Marie Moinet
13. Microgeographical difference of leptospirosis in Sri Lanka
Janith Warnasekara
14. MLST Subtyping of *Leptospira borgpetersenii* Serovar Hardjo Type bovis
David P. Alt
15. Novel Adjuvants Enhance IL17 and Cell Mediated Bovine Immune Responses to *Leptospira* Bacterin
Jennifer H. Wilson-Welder
16. Pathogenic *Leptospira interrogans* Serogroup Pomona Isolated from a Kidney of a Crested Porcupine (*Hystrix cristata*) in Tuscany Region, Italy
Giovanni Cilia
17. Respiratory tract infection model of leptospirosis
Yasuhiko Nikaido

18. Seroprevalence of Antibodies against *Leptospira* serovars in Clinically Healthy Horses in Three Countries of Central Europe
Jiri Nepereny
19. Simultaneous measurement of force and velocity of *Leptospira* swimming
Keigo Abe
20. The importance of being earnest, in your choice of bovine serum albumin to grow fastidious leptospires
Jarlath E. Nally
21. Use of Real Time PCR in Human Urine Samples for the Detection of Pathogenic *Leptospira* during Early Disease
Yasindu C Waniganayake
22. Community Health Center based Surveillance for Early Detection of Leptospirosis in Banyumas and Demak Districts, Central Java, Indonesia
Farida D. Handayani
23. E-Sule Application For Leptospirosis Surveillance In Community Health Centre, Banyumas And Demak District, Central Jawa, Indonesia
Ristiyanto
24. Factors Related to the Performance of Laboratories Participating in the International Proficiency Testing Scheme for the Leptospirosis Microscopic Agglutination Test Gustavo Monti
25. Variations in the Testing Performance of Laboratories Participating in the International Proficiency Testing Scheme for the Leptospirosis Microscopic Agglutination Test
Roderick J Chappel
26. Leptospirosis and Dengue Coinfection in Children: a Case Series from Sri Lanka
Yasindu Waniganayake
27. Mortality and Morbidity of Leptospirosis in Sri Lanka: A systematic review
Iresha Koralegedara
28. Leptospirosis seroprevalence in agriculture workers in Sacramento area, California
Alvaro Medel-Herrero
29. Prevalence of *Leptospira interrogans* ST34 in rodent reservoirs and patients in Srisaket, Thailand: a 17-year existence
Panadda Krairojananan
30. Exploring the Diversity of Circulating Pathogenic *Leptospira* spp Causing Human Leptospirosis in Sri Lanka
Dinesha Jayasundara
31. Urban leptospirosis in Myanmar under study
Cyrille Goarant
32. Sensitivity of Present Surveillance System of Leptospirosis In Ecuador Through Scenario Tree Model
Laura Calero
33. Seroprevalence of Human Leptospirosis in the U.S. Virgin Islands
Aileen Artus
34. Designing a Prospective Case-Control Study of Leptospirosis in New Zealand
Lila Adhikari
35. Public Awareness about Leptospirosis: Strategies and Challenges to Make the Scientific Language Accessible
Lourdes Isaac

36. *Leptospira* and the Farmer-Animal-Environment Interface of High-Prevalence Areas in Cabatuan, Iloilo, Philippines

Pia Regina Fatima Zamora