

## 5th International Workshop on *Streptococcus suis* (5<sup>th</sup> IWSs): Advanced Research in the Era of Antimicrobial Restriction

June 6-7, 2023

Sapphire Room 201, IMPACT Forum, Muang Thong Thani, Thailand

### CONFERENCE SCHEDULE

DAY 1  
JUNE 6, 2023

8:00 — 8:30

**Registration**

8:30 — 8:45

**Welcome talk; Acknowledgements**

Profs. Mariela Segura, Marcelo Gottschalk and Potjane Srimanote

THEME 1

**PATHOGENESIS OF THE INFECTION: VIRULENCE FACTORS & HOST-PATHOGEN INTERACTIONS**

Chairwoman: Dr. Gemma Murray

8:45 — 9:25

**Keynote lecture: Pathogenomics: new insights into *Streptococcus suis* lifestyle and pathogenesis**

Prof. Jerry Wells (Wageningen University, The Netherlands)

9:25 — 9:45

A small RNA promotes *Streptococcus suis* survival in host by enhancing oxidative stress resistance, survival in iron-limited condition, and glycerol uptake

**Prof. Zongfu Wu (Nanjing Agricultural University, China)**

9:45 — 10:05

Coinfection with *Bordetella bronchiseptica* does not enhance disease with *Streptococcus suis*

**Dr. Samantha Hau (USDA-National Animal Disease Center, USA)**

10:05 — 10:25

The streptococcal phase-variable Type I Restriction-Modification system SsuCC2op dictates *Streptococcus suis* methylome and impacts virulence

**Dr. Thomas Roodsant (University of Amsterdam, The Netherlands)**

10:25 — 10:35

**DISCUSSION**

10:35 — 11:00

**COFFEE BREAK**

11:00 — 12:00

**SATELLITE SYMPOSIUM IV**  
(SPONSORED BY ELANCO)

12:00 — 13:40

**LUNCH & POSTER SESSION**  
(ALL THEMES)

## THEME 2

### **DIAGNOSIS AND EPIDEMIOLOGY OF THE *STREPTOCOCCUS SUI*S INFECTION**

Chairman/woman: Prof. Nahuel Fittipaldi & Dr. Tracy Nicholson

13:40 — 14:20

**Keynote lecture: Human *Streptococcus suis* Infections in Thailand: Sociocultural factors, epidemiology, and genotypes**  
Prof. Anusak Kerdsin (Kasetsart University, Thailand)

14:20 — 14:40

Burden of disease and productivity impact of *Streptococcus suis* infection in Thailand  
Dr. Ajaree Rayanakorn (Chiang Mai University, Thailand)

14:40 — 15:00

*Streptococcus suis* is an emerging underreported zoonotic pathogen in Europe: a systematic review and molecular epidemiology study  
Mr. Jaime Brizuela (University of Amsterdam, The Netherlands)

15:00 — 15:25

**COFFEE BREAK**

15:25 — 16:05

**Keynote lecture: Diagnosis and epidemiology of *Streptococcus suis* infections in pigs**  
Prof. Maria Clavijo (Iowa State University, USA)

16:05 — 16:25

The emergence and spread of pathogenic lineages of *Streptococcus suis*  
Dr. Gemma Murray (University College London & University of Cambridge, UK)

16:25 — 16:45

European *Streptococcus suis*: genomic insights into diversity and resistance  
Prof. Nahuel Fittipaldi (University of Montreal, Canada)

16:45 — 17:00

**DISCUSSION**

17:00 — 18:00

**SATELLITE SYMPOSIUM VI**  
(SPONSORED BY VIRBAC)

20:00 — 23:00

**FAREWELL DINNER**  
(YOU MUST PURCHASE A TICKET)

DAY 2  
JUNE 7, 2023

THEME 3

**INFECTION CONTROL & PREVENTION IN THE ERA OF  
ANTIMICROBIAL REDUCTION**

Chairwomen: Prof. Maria-Jose Clavijo and Dr. Samantha Hau

8:30 — 9:10

**Keynote lecture: Interaction of *Streptococcus suis* with IgM**  
Prof. Christoph Baums (University of Leipzig, Germany)

9:10 — 9:30

A new generation glycoconjugate vaccine against *Streptococcus suis*  
Prof. Todd L. Lowary (University of Alberta, Canada)

9:30 — 9:50

Comparative virulence and antimicrobial resistance distribution of  
*Streptococcus suis* isolates obtained from the United States  
Dr. Tracy Nicholson (USDA-National Animal Disease Center, USA)

9:50 — 10:10

Immunoglobulin M-degrading enzyme of *Streptococcus suis*  
(IdeS<sub>suis</sub>) impairs porcine B cell signaling  
Ms. Annika Breifelder (University of Leipzig, Germany)

10:10 — 10:30

**Invited oral presentation: Policy for antibiotic management in  
livestock in Thailand**

Dr. Julaporn Srinha  
Division of Animal Feed and Veterinary Products Control  
Department of Livestock Development  
Ministry of Agriculture and Cooperatives, Thailand

10:30 — 11:00

**COFFEE BREAK**

11:00 — 11:40

**Update on autogenous vaccines**  
Prof. Mariela Segura & Marcelo Gottschalk (University of Montreal, Canada)

11:40 — 12:00

Assessment of immunogenicity of different autogenous  
*Streptococcus suis* bacterins in piglets  
Dr. Hubert Gantelet (Ceva Biovac, France)

12:00 — 13:00

**LUNCH & POSTER SESSION**  
(ALL THEMES)

## THEME 4

### SHORT PRESENTATIONS - STUDENTS

Chairman: Mr. Dominic Dolbec

13:00 — 13:15

Mobile genetic elements that carry macrolide-lincosamide and tetracycline resistance genes in *Streptococcus suis* strains isolated in France  
Ms. Manon Dechêne-Tempier (ANSES-INRAE, France)

13:15 — 13:30

Contact-dependent growth inhibition of serotype 2 *Streptococcus suis* by commensal non-serotype 2 *S. suis*  
Ms. Prajiraporn Prasopthum (Thammasat University, Thailand)

13:30 — 13:45

Molecular characterization of Spanish *Streptococcus suis* clinical isolates belonging to serotypes 1-14 and 2-1/2  
Mr. Jose Luis Arnal Bernal (Exopol & Universidad de Zaragoza, Spain)

13:45 — 14:00

Precision genome engineering in *Streptococcus suis* based on a broad-host-range vector and CRISPR-Cas9 technology  
Mr. Alex Gussak (Wageningen University, The Netherlands)

14:00 — 14:15

Do lipoteichoic acids play a role in the pathogenesis of *Streptococcus suis*?  
Ms. Servane Payen (University of Montreal, Canada)

14:15 — 14:30

**CLOSURE AND ACKNOWLEDGMENTS**

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