









# **PROGRAMME**

# Foodborne pathogens & whole genome sequencing: impact on public health protection

JOINT CONFERENCE

# 26-28 March 2019

Maison de la RATP - Espace du Centenaire 189 rue de Bercy 75012 Paris - France

#FoodSafetyWGS2019



#### FOODBORNE PATHOGENS & WHOLE GENOME SEQUENCING

JOINT CONFERENCE

# **TUESDAY 26 MARCH**

13:30	Registration
14:00	Opening Welcome and opening remarks form ANSES Roger GENET, ANSES, France
	Opening remarks from DTU Christine NELLEMANN, National Food Institute, DTU, Denmark
	Opening remarks from BfR Andreas HENSEL, BfR, Germany
	Opening remarks from NIFDS Hyo-Sun KWAK, NIFDS, South Korea
14:50	Introductory Keynote speech The Promise of Microbial Genomics: How Microbiology is Standing Up to the Many Challenges of a 21st Century Food Supply Eric BROWN, Center for Food Safety and Applied Nutrition (FDA), USA

### 15:50 Coffee break

## 16:20 SESSION 1

# WGS for microbiological surveillance and epidemiology

CHAIRS: Jørgen SCHLUNDT, Nanyang Technological University (NTU), Singapore and Hyo-Sun KWAK, National Institute of Food and Drug Safety Evaluation (NIFDS), Ministry of Food and Drug Safety, South Korea

KEYNOTE SPEAKER: Genomic insights into the epidemiology and surveillance of Vibrio cholerae O1 infections

François-Xavier WEILL, Institut Pasteur, France

Surveillance of Listeria monocytogenes in foodstuffs and food processing plants by WGS in Germany

Stefanie LÜTH, Federal Institute for Risk Assessment, Freie Universität Berlin, Germany

Rapid Detection and Identification of Foodborne Pathogens using Single Nucleotide Polymerphism (SNP) Profiling of Their Whole Genome Sequences

**Ju-Hoon LEE**, National Institute of Food and Drug Safety Evaluation (NIFDS), Kyung Hee University, South Korea

Past, present and future in the Danish antimicrobial resistance monitoring programme (DANMAP) Valeria BORTOLAIA, National Food Institute, DTU, Denmark

18:05 End of the day



# **WEDNESDAY 27 MARCH**

8:30 Registration

## 9:00 SESSION 2

# Genomics for foodborne pathogens characterization and outbreak investigation

CHAIRS: Mark ALLARD, Food and Drug Administration (FDA), Office of Regulatory Science, Division of Microbiology, USA and Burkhard MALORNY, Federal Institute for Risk Assessment (BfR), Germany

KEYNOTE SPEAKER: Impact of whole genome sequencing on the investigation of foodborne outbreaks of Shiga toxin-producing Escherichia coli serogroup O157:H7

Claire JENKINS, Public Health England, United Kingdom

Building capacity in WGS analysis for detection of deliberate outbreaks

Jette Sejer KJELDGAARD, National Food Institute, DTU, Denmark

Genomic characterization of *Clostridium perfringens* strains involved in food poisoning outbreaks in France 2013-2017

Abakabir Mahamat ABDELRAHIM, ANSES, France

Foodborne Outbreaks Investigation and Whole Genome Sequences Analysis In Korea MFDS
Jin-Hee HWANG, National Institute of Food and Drug Safety Evaluation (NIFDS), Ministry of Food

and Drug Safety, South Korea

#### 10:45 Coffee break

### 11:15 SESSION 3

# Quantitative risk assessment modelisation and source attribution in the genomic era

CHAIRS: Mirko ROSSI, European Food Safety Authority (EFSA), Italy and Gilles SALVAT, ANSES, France

KEYNOTE SPEAKER: Towards 'next-generation' source attribution and microbial risk assessment of foodborne pathogens

Lapo MUGHINI-GRAS, RIVM, the Netherlands

The use of Whole Genome Sequencing in risk assessment: Application to the cold smoked salmon-related listeriosis risk model

Laurent GUILLIER, ANSES, Food Safety Laboratory, Unit Salmonella and Listeria, France

Campylobacter: recent knowledge using genomics and metagenomics

Marianne CHEMALY, ANSES, Laboratory of Ploufragan-Plouzané-Niort, Unit of Hygiene and Quality of Poultry and Pork Products, France

RAKIP: Resources for harmonized annotation and efficient exchange of risk assessment models Matthias FILTER, Federal Institute for Risk Assessment (BfR), Germany

13:00 Free time for lunch



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# **WEDNESDAY 27 MARCH**

#### 14:30 SESSION 4

# Pipelines and workflows for WGS data analysis

CHAIRS: **Soohwan SUH**, National Institute of Food and Drug Safety Evaluation (NIFDS), Ministry of Food and Drug Safety, South Korea and **Eric BROWN**, Center for Food Safety and Applied Nutrition, Food and Drug Administration, USA

KEYNOTE SPEAKER: Integration of genomics in outbreak detection and investigation of food-borne pathogens: state-of-the-art and challenges

Mirko ROSSI, European Food Safety Authority (EFSA), Italy

#### PathoLive - Pathogen detection while sequencing

Simon TAUSCH, Federal Institute for Risk Assessment (BfR), Germany

Adaptation to animal sources of *Salmonella enterica* subsp. *enterica* deciphered by Genome Wide Association Study and Gene Ontology Enrichment Analysis at the pangenomic scale

Nicolas RADOMSKI, ANSES, Food Safety Laboratory, Genome Analysis Modelling Risk (GAMeR), France

First steps towards incorporation of whole-genome sequencing data in exposure assessment: Machine Learning and Network-Diffusion approaches

**Pimlapas LEEKITCHAROENPHON,** Technical University of Denmark, National Food Institute, DTU, Denmark

#### 16:15

#### Coffee break

#### 16:45

#### SESSION 5

## Antimicrobial resistance

CHAIRS: Jean-Yves MADEC, ANSES, France and Valeria BORTOLAIA, Technical University of Denmark, National Food Institute, DTU, Denmark

KEYNOTE SPEAKER: The presence and future in antimicrobial resistance surveillance

**Rene Sjøgren HENDRIKSEN**, Technical University of Denmark, National Food Institute, DTU, Denmark

Plasmid-mediated colistin resistance in German Salmonella enterica strains isolated from livestock, food and the environment

Maria BOROWIAK, Federal Institute for Risk Assessment (BfR), Germany

#### One Health Approach on AMR surveillance in Korea

**Soohwan SUH,** National Institute of Food and Drug Safety Evaluation (NIFDS), Ministry of Food and Drug Safety, South Korea

WGS and antimicrobial resistance

Isabelle KEMPF, ANSES, Ploufragan-Plouzané-Niort Laboratory, France

#### 18:15

### Cocktail (until 20:00)



# **THURSDAY 28 MARCH**

8:30	Registration
9:00	SESSION 6
	Metagenomics for food safety
	CHAIRS: Carlus DENEKE, Federal Institute for Risk Assessment (BfR), Germany and Michel-Yves MISTOU, ANSES, France
	KEYNOTE SPEAKER: Challenges and opportunities in foodborne virus genomics Marion KOOPMANS, Erasmus Medical Center, The Netherlands
	Application of metagenomics for the detection of foodborne pathogens  Josephine GRUETZKE, Federal Institute for Risk Assessment (BfR), Germany
	Identification of Probiotic Bacteria in Foods through Metagenomic Approach Woojung LEE, National Institute of Food and Drug Safety Evaluation (NIFDS), Ministry of Food and Drug Safety, South Korea
	Global surveillance of antimicrobial resistance through global sewage Pimlapas LEEKITCHAROENPHON, Technical University of Denmark, National Food Institute, DTU, Denmark
10:45	Coffee break
11:00	ROUND TABLE 1
	Handling multi countries foodborne outbreaks
	MODERATORS: Charlotte GRASTILLEUR, ANSES, France and Hyo-Sun KWAK, National Institute of Food and Drug Safety Evaluation (NIFDS), Ministry of Food and Drug Safety, South Korea
	Stefano MORABITO, Istituto Superiore di Sanità (ISS), Italy Martial PLANTADY, Health Food Safety Directorate-General (DG SANTE), European Commission, Belgium Johanna TAKKINEN, European Centre for Disease Prevention and Control (ECDC), Sweden Henriette de VALK, Santé publique France, France
11:45	ROUND TABLE 2
	Data sharing and regulatory issues in the WGS era
	MODERATORS: Rene Sjøgren HENDRIKSEN, National Food Institute, DTU, Denmark and Karsten NÖCKLER, Federal Institute for Risk Assessment (BfR), Germany
	Marc ALLARD, Food and Drug Administration (FDA), Office of Regulatory Science, Division of Microbiology, USA George HARINGHUIZEN, National Institute for Public health and the Environment (RIVM), The Netherlands Mirko ROSSI, European Food Safety Authority (EFSA), Italy
	Jørgen SCHLUNDT, Nanyang Technological University (NTU), Singapore
12:30	Closing speech Roger GENET, ANSES, France

End of the Joint scientific Conference

13:00