

ISFEV 2022 PROGRAM

Monday, May 16

Faculty of Biology

10:00-14:00 Registration

11:00-13:00 Satellite Workshop RISEGAL (in Spanish)

Workshop organized with the collaboration of the Galician Network for Emerging Risks in Food Safety (RISEGAL)

Welcome. Marta López Cabo (Spain)

Results from an exploratory study developed by RISEGAL in different Galician Rías

Jesús L. Romalde (Spain)

Hepatitis E virus, an emerging food pathogen?

David Rodríguez Lázaro

African swine fever: an unprecedented global threat in animal health

Carmina Gallardo

General discussion

Fonseca Palace

16:30-17:00 Opening Ceremony

17:00-18:00 Opening Lecture

Miniguts: avatars for cultivating human noroviruses for Food and Environmental Virology Applications

Mary K. Estes (USA)

18:00-20:00 Reception at the University (Cloister of Fonseca Palace)

Tuesday, May 17

09:00- 11:00 Session: Viral structure, stability, fate and transport
Chair Persons:

Oral communications

Impact of amino acid changes in capsid protein on disinfection susceptibility of coxsackievirus B5

Shotaro Torii (Japan)

Chloride enhances viral genome and virus chlorination at conditions relevant to water treatment

Aleksandra Szczuka (USA)

Inactivation of SARS-CoV-2 by heat and alkaline pH treatments can be validated using somatic coliphages

Isabelle Bertrand (France)

Thermal Inactivation of Hepatitis E virus (HEV) from varying sources

Liam O'Connor (UK)

Inactivation mechanisms of influenza A virus within the micro-environment of expiratory bioaerosols

Shannon David (Switzerland)

Strong impact of aerosol pH on airborne influenza- and coronaviruses persistence

Aline Schaub (Switzerland)

Shifts in Enterovirus population composition during activated sludge treatment

Odile Larivé (Switzerland)

Experimental evaluation of the ratio infectivity/genome of Human Adenovirus 5 in water for a possible QMRA application

Marco Verani (Italy)

11:00-11:30

Coffee Break

11:30-13:15

Session: Viral structure, stability, fate and transport (Cont.)
Chair Persons:

Oral communications

Mechanisms of inactivation of non-enveloped viruses in natural ecosystems: bacterial proteolytic enzymes as biological scissors in the fate of enteroviruses.

Marie-Hélène Corre (Switzerland)

Mechanisms of Waterborne Viruses Removal by Ciliates: Toward Biocontrol of Viral Pathogens?

Margot Olive (Switzerland)

Characterisation of bacteriophage communities in forest and grasslands in Luxembourg

Perrine Florent (Luxembourg)

Reducing emergency shellfish growing area closures through hydrographic and microbial source tracking studies

Carlos J.A. Campos (New Zealand)

Characterisation of glycans involved in human enteric viruses and oyster interactions

Gabriel Euller (France)

Interaction between norovirus and histo-blood group antigens: is there a protective effect against pH and proteolytic enzymes?

Manon Chassaing (France)

Use of the enteroid model for assessing the persistence of infectious human noroviruses in natural seawater

Marion Desdouits (France)

13:15-15:00

Lunch

15:00-16:00

Poster session

16:00-17:00

Session: Viral disinfection and treatment
Chair Persons:

Oral communications

Study on antiviral activity of essential oils and extracts

Chrysoula Androutsopoulou (Greece)

Chloride and non-chloride sanitizers in vegetable post-harvest wash water to control viral contamination

Irene Falcó (Spain)

Implication of cell culture media in UVC inactivation of viruses

Morteza Abbaszadegan (USA)

Measures for high-touch surfaces against SARS-CoV-2

Sophie Butot (Switzerland)

17:00-17:30 Coffee Break

17:30-18:30 Session: Viral disinfection and treatment (Cont.)
Chair Persons:

Oral communications

Ultrafiltration efficacy to eliminate the Tulane virus from seawater
Joanna Ollivier (France)

Predictive models for the disinfection of nonculturable and difficult-to-culture viruses

Krista Wigginton (USA)

Thermal inactivation of human coronavirus 229E and SARS-CoV-2 on inanimate surfaces typically found within airplane flight decks

Luisa Ikner (USA)

Cold Atmospheric Plasma and Hydrodynamic Cavitation, Novel Methods for Inactivation of Waterborne Viruses

Arijana Filipić (Slovenia)

Wednesday, May 18

09:00-09:30 “Genetic PCR Solutions” Sponsored lecture
Evolution of zoonotic SARS-CoV-2 database and its influence in assigning the phylogenetic value of mutations for lineage-specific detection
Antonio Martínez-Murcia (Spain)

09:30- 11:00 Session: Analytical methods
Chair Persons:

Oral communications

A rigorous quantitative DNA virus metagenomic method and its limitations

Kathryn Langenfeld (USA)

A portable viral concentration method based on ultrafiltration and wet foam elution for studying viruses from groundwater samples

Marta Rusiñol (Spain)

Human intestinal enteroids for environmental monitoring of infectious human noroviruses. Are we ready for routine testing?

Kellogg Schwab (USA)

Feasibility of integrity assays and propagation in zebrafish to investigate the persistency of norovirus and other viruses in the environment

Kata Farkas (UK)

Optimisation of detection of Hepatitis E virus (HEV) from pork meat products

Liam O’Connor (UK)

Development of an ex-vivo infectivity assay for hepatitis E virus

Renate W. Hakze–van der Honing (The Netherlands)

11:00-11:30 Coffee Break

11:30-13:00 Session: Analytical methods (Cont.)
Chair Persons:

Oral communications

Two years of SARS-CoV-2 monitoring in wastewater: main lessons learnt and last advances implemented

Silvia Bofill-Mas (Spain)

Platinum chloride based viability RT-qPCR for the detection of potentially infectious SARS-CoV-2

Enric Cuevas-Ferrando (Spain)

Interlaboratory trials and RT-qPCR inhibition investigations for quality assurance in the United Kingdom's monitoring of SARS-CoV-2 in wastewater

George Scott (UK)

Trapping SARS-CoV-2 running in sewer pipes using a fibrous material

Syun-suke Kadoya (Japan)

Long-read sequencing for SARS-Cov-2 variants analysis in sewage

Sandra Martínez-Puchol (Spain)

Determination of SARS-CoV-2 signature mutations and indels to identify variants of concern and variants of interest: methods comparison

Albert Carcereny (Spain)

13:00-15:00

Lunch

15:00-16:00

Poster session

16:00-17:30

Session: Viruses in Food and Water
Chair Persons:

Oral communications

A plant virus tale: from wastewater to irrigation to crops

Olivera Maksimović Carvalho Ferreira (Slovenia)

Monitoring human viral pathogens reveals potential risk for treated wastewater reuse

Walter Randazzo (Spain)

Are enteric viruses in Southern Chile a real concern on natural and farmed bivalve mollusks which could increase the risk in human consumers?

Viviana Cachicas (Chile)

Disease burden of consuming norovirus GII.2 and GII.17 bioaccumulated *Crassostrea gigas* oysters

Mohan Amarasiri (Japan)

Imported raspberries linked to Norovirus cruise ship outbreak

Jacqueline Williams-Woods (USA)

Virological analyses in collective catering outbreaks in France between 2012 and 2017

Catherine Hennechart-Collette (France)

17:30-18:00

Coffee Break

18:00-19:00

Session: Viruses in Food and Water (Cont.)
Chair Persons:

Oral communications

Typing of group A rotaviruses identified from stool and water samples to find out the possible source of contamination

Sarmila Tandukar (Japan)

Inactivation of hepatitis E virus (HEV) and its surrogate virus murine norovirus (MNV) during industrial heat treatment of sausages.

Emil Loikkanen (Finland)

Exploring the possibility of human coronaviruses transmission through food and food-contact surfaces

Neda Nasheri (Canada)

A study on the presence of SARS-CoV-2, rotavirus A, norovirus and hepatitis E virus in Croatian environment

Dragan Brnić (Croatia)

19:30-20:30 Guided Tour: Cathedral and surroundings

Thursday, May 19

09:00- 11:00 Session: Virus outbreaks, epidemiology & source tracking
Chair Persons:

Oral communications

Transmission dynamics modeling in indoor environments using network analysis

P.R.C Sewwandi Bandara (Japan)

Estimating The Impact of Control Interventions on Transmission of COVID-19

Paul Hunter (UK)

Time course of SARS-CoV-2 viral shedding in feces: a modeling study

Fuminari Miura (Japan)

Estimating sewershed prevalence of SARS CoV 2, PMMoV, and crAss phage fecal shedding using models informed by measurements from COVID 19 patient samples and wastewater solids

Peter Arts (USA)

Review of a two-year monitoring period of SARS-CoV-2 in wastewater in France: the “Obépine” network

Christopher Gantzer (France)

Preliminary data of SARS CoV2 surveillance in urban wastewater in Tuscany - Italy

Annalaura Carducci (Italy)

SARS-CoV-2 in human sewage and river water from a remote and vulnerable area as a surveillance tool in Brazil

David Rodríguez-Lázaro (Spain)

Wastewater surveillance as a tool to trace dynamics of SARS-CoV-2 variants of concern (VOC) in the community

David García-Pedemonte (Spain)

11:00-11:30 Coffee Break

11:30-13:30 Session: Virus outbreaks, epidemiology & source tracking (Cont.)
Chair Persons:

Oral communications

Analysis of SARS-CoV-2 diversity circulating in Spanish wastewaters

Alba Pérez-Cataluña (Spain)

Building a wastewater surveillance-based weekly COVID-19 case prediction model in Sendai, Japan

Yifan Zhu (Japan)

Wastewater surveillance in the management of the COVID-19 pandemic in Hungary

Eszter Róka (Hungary)

Wastewater surveillance of SARS-CoV-2 in a medium-sized city in NW Spain. A one-year follow-up study

David Polo (Spain)

Could the wastewater-based epidemiology be generalized to other fecal shedding pathogens?

Sebastien Wurtzer (France)

Extension of SARS-CoV-2 environmental surveillance to include selected enteric viruses: norovirus and hepatitis E virus

Janet Mans (South Africa)

Surveillance of enteric viruses in STEP Vidy using enterovirus amplicon sequencing and (RT)qPCR

Xavier Fernandez-Cassi (Switzerland)

Respiratory Syncytial Virus (RSV) RNA in wastewater settled solids reflects RSV clinical positivity rates

Alexandria Boehm (USA)

13:30-15:00

Lunch

15:00-16:00

Poster session

16:00-17:15

Session: Risk assessment and viral occurrence
Chair Persons:

Oral communications

Quantitative microbial risk assessment for municipal solid waste workers exposed to human adenovirus through inadvertent ingestion of truck leachate

Ileana Federigi (Italy)

Transfer data of SARS-CoV-2 from foods and packaging materials to hands to face

Leen Baert (Switzerland)

SARS-CoV-2 fomite risks and mitigation strategies associated with cold-chain food packaging.

Julia Sobolik (USA)

Risk estimation of SARS-CoV-2 fomite transmission through food

Leen Baert (Switzerland)

Risk assessment of waterborne virus infection in Lake Geneva using water quality simulation coupled with quantitative microbial risk assessment

Chaojie Li (Switzerland)

20:30-

Conference banquet: Cloister of the Monastery of San Francisco.

Friday, May 20

09:00- 10:30

Session: Emerging issues
Chair Persons:

Oral communications

Removal of viral human pathogens in urban stormwater by vegetated biochar-amended biofilters

Katherine Graham (USA)

Use of polyphenols to improve virucidal effects of surgical face masks

Marco Verani (Italy)

Enteric viruses in beach sand: risks to public health

Silvia Monteiro (Portugal)

Metagenomic to describe human and animal enteric virus diversity in environmental samples.

Françoise S. Le Guyader (France)

Lessons learned from monitoring of SARS-COV-2 in Slovenian wastewater

Ion Gutierrez-Aguirre (Slovenia)

10:30-11:15

Closing Lecture

Monitoring SARS-CoV-2 airborne transmission in indoor environments

Antonio Alcamí

11:15-11:30

Closing Ceremony

11.30-

Optional tour to Ría de Arousa