MOOD hybrid workshop

IDENTIFY SIGNS AND DRIVERS OF ZOONOTIC DISEASES EMERGENCE AND DIGITAL DATA RESOURCES FOR EPIDEMIC INTELLIGENCE

Date
28th-29th September 2022

Venue: Science Museum MUSE -TRENTO (Italy)

Scientific program

28th September 2022

Time 8.30-9.00 am

Registration

Time 9.00-9.30

Welcome and opening speech by Annapaola Rizzoli (FEM), Elena Arsevska (CIRAD), dr Giancarlo Ruscitti (PAT), prof. Mario Pezzotti (FEM), Dr Andrea Simoni (FBK), Dr Michele Lanzinger (MUSE)

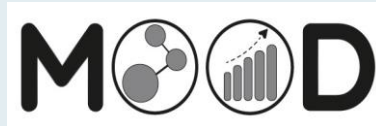**Time 9.30-10.30**

Chair Dr Heidi C. Hauffe

Plenary presentation: Prof. Peter Hudson. The ecology of pathogen invasion and prevention

Coffee break 10.30-11.00

Time 11.00-12-00

Chair Dr Heidi C. Hauffe

Plenary presentation: Prof. Marion Koopmans. Tracking and real-time risk assessment of emerging viruses: lessons learned from the COVID-19 pandemic

Time 12.00-13.00 Lunch break

Time 13.00-18.35

Session 1: Cross cutting theme: Which drivers and how they affect disease emergence

Time 13.00-14.50

Session 1a: Climate and environment as drivers of infectious disease: the evidence.

Chair Dr William Wint

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13.00-13.25	Keynote: Dr. William Wint. What climate data are out there and which should you use for modeling
13.25-13.50	Keynote: Dr. Donal Bisanzio. What needs to be done to climate drivers to make them model friendly?
13.50-14.05	Dr Olivier Restif. Untangling the seasonal drivers of zoonotic spillover from wildlife: Hendra virus dynamics in an Australian bat colony.
14.05-14.20	Dr. Eleanor M Rees. Effect of hydrometeorological indicators on leptospirosis risk in Fiji: a modelling study.
14.20-14.35	Dr. Francesca Dagostin. Ecological covariates affecting the risk of tick-borne encephalitis in the European continent.
14.35-15.50	Dr. Giulia Mencattelli. West Nile virus Lineage 2 overwintering in Italy.

Time 14.50-15.10 Short break

Time 15.10-17.25

Session 1b: Biodiversity loss, wildlife conservation, host and pathogen traits.

Chair Dr. Valentina Tagliapietra

15.10-15.35	Keynote: Prof. Raina Plowright. Cornell University. Pathogens spillover: lesson learned from bat borne viruses.
15.35-16.00	Keynote: Dr. Xavier Bailly. Describing the diversity of tick-borne pathogens to understand their transmission routes and manage their emergence.
16.00-16.25	Keynote: Dr. Lorenzo Serra. Changes in bird migration pattern in relation to West Nile virus emergence in Europe.
16.25-16.40	Dr. Joanne Lello. Macroparasites as drivers of emerging disease.
16.40-16.55	Dr. Sarah Perkins. Merging ecology and technology: the capacity for detecting infectious diseases in wildlife using computer vision
16.55-17.10	Dr. Benjamin Roche. Prezode: Preventing zoonotic disease emergence
17.10-17.25	Dr Nicola Ferrari. Epidemiological intelligence for surveillance of animal health: monitoring mass mortality events in wildlife
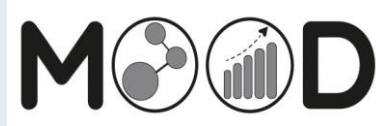
Coffee break 17.25-17.50
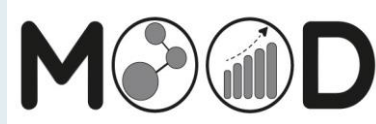
Time 17.50-18.40

Session 1c: Socio-economical drivers of diseases emergence

Chair Dr. Luca Busani

17.50-18.15   Keynote. Dr. Stefano Merler. Epidemiology of SARS-Cov-2 and public health indicators

18.15-18.40   Keynote. Dr. Anna Ruggieri. Gender and infectious diseases

Time 20.30-22.00 Social dinner

29th September 2022

Time 9.00-10.00

Chair Dr Heidi C. Hauffe

Plenary presentation. Prof. Jan Semenza. Harvesting the potential of big data for vector-borne disease outbreaks

Time 10.00-11.00

Chair Dr Heidi C. Hauffe

Plenary presentation . Prof. Giovanni Rezza. Data sharing and integration in public health

Coffee break 11.00-11.30

Session 2: Cross cutting theme: What methods and tool can be applied to drivers to provide early warning and rapid disease risk assessment?

Time 11.30-13.00

Session 2b: Automatic data acquisition via web-scraping

Chair Dr. Maguelonne Teisseire

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11.30-11.55	Keynote. Dr. Mathieu Roche. How text-mining could improve epidemiological surveillance?
11.55-12.20	Keynote: Dr. Linda MacKinnon. Innovative Surveillance: ISID's Program for Monitoring Emerging Diseases (ProMED).
12.20-12.35	Dr. Paolo Tizzani. Contribution of epidemic intelligence to transparency and timeliness in reporting to the World Organisation for Animal Health.
12.35-12.50	Dr. Andrzej Jarynowski. Social tensions due to ASF and HPAI on Polish Twitter.

Time. 13.00-14.00 Lunch break

Time 14.00-16.05

Session 2a: Innovative modelling methodologies that enable risk modelling and mapping.

Chair Dr. Giorgio Guzzetta and Prof. Roberto Rosà

14.00-14.25	Keynote. Dr. Vittoria Colizza. Source-sink epidemic dynamics shaping COVID-19 pandemic waves.
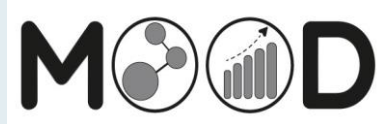
14.25-14.50	Keynote. Dr. Moriz Kraemer. The context specific emergence and spread of novel SARS-CoV-2 VOCs
14.50-15.05	Dr. Giovanni Marini. Drivers of West Nile virus human transmission risk in Europe
15.05-15.20	Dr. Carla Ippoliti. EO data and Deep Learning methods to map Culex pipiens distribution in central Italy.
15.20-15.35	Dr. Ioannis Kioutsioukis. Early warning of WNV human cases issued from a climate-dependent epidemiological model operating in a probabilistic framework.
15.35-15.50	Dr. Chiara Poletto. Global spatiotemporal pattern and potential drivers of influenza decline during the COVID-19 pandemic.
15.50-16.05	Dr Chiara Sabbatini. Local vs nationwide restriction against COVID-19 pandemic in France between September 2020 and June 2021.

Coffee break 16.05-16.30

Time 16.30-18.30

Chair dr. Heidi C.Hauffe

Time 16.30-17.30

Plenary presentation. Prof. Emily Gurley. Spillover Surveillance and One Health Response: Understanding Emerging Zoonotic Threats in Real Time.

Time 17.30-18.30

Plenary presentation. Prof. Hector Aguilar- Carreno. Broad-spectrum countermeasures in response to early spillover events.