## ModAH 2024 – Program

KL: Keynote Lecture, CT: Contributed Talk, IT: Invited Talk.

## Tuesday, 27 of August

| 13:00-14:00 | Registration |  |   |  |  |
|-------------|--------------|--|---|--|--|
| 14:00-14:10 |              | Welcome remarks  |   |  |  |
| 14:10-15:00 | KL           | Quirine ten Bosch<br>Wageningen University & Research      | Silent transmission in vector-borne diseases – combining field and lab data to shed light on epidemiological dark matter  |  |  |
| 15:00-15:20 | СТ           | Simon Firestone<br>The University of Melbourne             | Modelling workflows for rapid outbreak appraisal, decision- and policy-support in Australia   |  |  |
| 15:20–15:40 | СТ           | Mariken de Wit<br>Wageningen University & Research         | Characterising the role of the silent reservoir in shaping vector-borne disease emergence   |  |  |
| 15:40-16:40 |              |  | Coffee break & poster session   |  |  |
| 16:40-17:00 | СТ           | Aeron Sanchez<br>Roslin Institute, University of Edinburgh | Using machine learning with wild bird reporting data to produce risk maps of Highly Pathogenic Avian Influenza in<br>Britain and determine possible biases in the wild bird reporting |  |  |
| 17:00-17:20 | СТ           | Maryem Ben Salem<br>ANSES                                  | Perception, Behaviour and Transmission: Insights from an agent-based model on HPAI epidemiology   |  |  |
| 17:20–17:40 | СТ           | Facundo Muñoz<br>Cirad                                     | Modelling dispersal, survival and trapping in SIT trials  |  |  |
| 19:00-21:00 |              | -  | Junior Researcher networking event  |  |  |

## Wednesday, 28 of August

| 09:00-09:20 | СТ | Luca Martelli<br>Istituto Zooprofilattico Sperimentale<br>delle Venezie | Unraveling the Role of Wild-Domestic Interface in the Spread of High Pathogenicity Avian Influenza  |
|-------------|----|---|---|
| 09:20-09:40 | СТ | Emma L. Fairbanks<br>University of Warwick                              | Assessing the impact of host clustering and control strategies on African horse sickness virus transmission: A simulation-<br>based analysis              |
| 09:40-10:00 | СТ | Sébastien Picault<br>INRAE  | From mechanistic models to decision-support tools: generating user-friendly web application from artificial intelligence and software engineering methods |
| 10:00-10:20 | СТ | Glen Guyver-Fletcher<br>University of Warwick                           | Using a multi-species epidemiological model to assess optimal FMD vaccine allocations across India  |
| 10:20-11:00 |    |   | Coffee break & poster session   |
| 11:00-11:20 | СТ | Laetitia Canini<br>Anses  | Outbreak reconstruction with a slowly evolving multi-host pathogen: a comparative study of three existing methods on Mycobacterium bovis outbreaks        |
| 11:20-11:40 | СТ | <b>Rémi Fay</b><br>Université Lyon 1                                    | Methodological challenges in estimating brucellosis transmission risk in an Alpine ibex population using approximate<br>Bayesian computation              |
| 11:40-12:00 | СТ | Clara Delecroix<br>Wageningen University & Research                     | A novel machine learning approach to anticipate vector-borne disease outbreaks  |
| 12:00-12:20 | СТ | Egil A.J. Fischer<br>Utrecht University                                 | SUMMERFAIR – combining data science and infection models for estimating transmission parameters   |
| 12:20-13:50 |    |   | Lunch   |
| 13:50-14:40 | KL | Mike Tildesley<br>University of Warwick                                 | Modelling optimal intervention strategies for animal diseases in data poor settings   |
| 14:40-15:00 | СТ | Brandon Hayes<br>INRAE - ENVT   | Quantifying the influence of wild boar density on African swine fever spread in wild boar populations, Italy, 2022-2023                                   |
| 15:00-15:20 | СТ | Anna Gamza<br>Roslin Institute, University of Edinburgh                 | Spatial scales of interactions driving spread of Highly Pathogenic Avian Influenza in Great Britain   |
| 15:20-16:20 |    |   | Coffee break & poster session   |
| 16:20-16:40 | СТ | Hélène Cecilia<br>New Mexico State University                           | Quantifying the relationship between within-host viral dynamics and transmission to mosquitoes: the case of Zika virus in two monkey species              |
| 16:40-17:00 | СТ | Jonathan Bastard<br>Anses   | Reconstructing West Nile virus dynamics in a tropical island using sentinel serological data  |
| 17:00-17:20 | СТ | Vianney Sicard<br>UFZ – Helmholtz Centre for<br>Environmental Research  | Modeling Vaccination Strategies for African Swine Fever Control Among Wild Boars: A Computational Approach  |
| 17:20-17:40 | СТ | Gustavo Machado<br>North Carolina State University                      | Mitigating between-farm disease transmission through simulating vehicle rerouting and enhanced cleaning and disinfection protocols                        |
| 20:00       |    | •   | Conference Dinner   |
|             |    |   |   |

## Thursday, 29 of August

|             |    | Amandine Bibard                           |  |  |
|-------------|----|---|--|--|
| 09:00-09:20 | СТ | Boehringer Ingelheim Animal Health        | Windborne dispersal of Culicoides midges in Europe: Case study with epizootic hemorrhagic disease virus in France  |  |
|             |    | France                                    |  |  |
| 09:20-09:40 | СТ | Alfredo Acosta                            | Modelling phage therapy dynamics of MRSA on ex vivo pig skin experiments   |  |
|             |    | Swedish Veterinary Agency                 |  |  |
| 09:40-10:00 | СТ | Baptiste Sorin-Dupont                     | Better targeting treatments against Bovine Respiratory Disease by combining dynamic generalized linear models and mechanistic modelling  |  |
|             |    | INRAE                                     |  |  |
| 10:00-10:20 | СТ | Chris Banks                               | Machine learning augmented diagnostic testing to identify sources of variability in test performance   |  |
| 10:00-10:20 |    | Roslin Institute, University of Edinburgh |  |  |
| 10:20-11:00 |    | Coffee break & poster session             |  |  |
| 11:00-11:20 | СТ | Hélène Duault                             | Could ship movements transmit Infectious Salmon Anemia Virus between Norwegian fish farms?   |  |
| 11.00-11.20 |    | INRAE, VetAgro Sup                        |  |  |
| 11:20-11:40 | СТ | Oriane Ploquin                            | The role of wildlife diversity and contacts in the circulation of infectious diseases: an integrated monitoring of a human/livestock/wildlife interface in sub-saharan savanna |  |
|             |    | IRD                                       |  |  |
|             |    | Thomas Hagenaars                          |  |  |
| 11:40-12:00 | СТ | Wageningen Bioveterinary Research         | Evaluating control measures against Highly Pathogenic Avian Influenza spread between Dutch poultry farms: preventive   |  |
|             |    |   | culling and bucket sampling  |  |
| 12:00-12:40 | IT | Pauline Ezanno<br>INRAE                   | ModAH-HUB: an new international network in modelling in animal health  |  |
| 12:40-12:50 |    |   | Conclusion   |  |