

## Monday 12th May 2025

**12:30**     **Accueil**

**13:00**     **Conference opening**

**13:15**     **Keynote speaker:**  
**Silvia De Monte**     Single-cell phenotypes structure the social life of the amoeba *Dictyostelium discoideum*

**14:15**     **"Sex and CI" session (1/2)**

14:15     Jean PECCOUD

A virus feminizes carriers in a pill bug

14:35     Théo UlvÉ

Coexistence of three sex determinants in a population of the pill bug *Armadillidium arcangelii*

14:55     Nicolas RODE

Male host genetic background strongly impacts *Wolbachia*-induced cytoplasmic incompatibility in an invasive pest

**15:15**     **BREAK**

**16:00**     **"Sex and CI" session (2/2)**

16:00     Julien AMOROS

Evolution of cytoplasmic incompatibility genes among maternally inherited symbionts: *Wolbachia* do not walk alone

16:20     Richard CORDAUX

Sex ratio distorters and the evolution of sex determination in the isopod *Armadillidium vulgare*

16:40     Alice NAMIAS

Perte de fonction répétée des protéines de type sexuel chez les champignons *Microbotryum*

**17:00**     **end of the 1st day**

## Tuesday 13th May 2025

**09:00**     **"Genome evolution" Session**

09:20     Maxime MAHOUT

*Wolbachia* metapangenomics of individual *Culex* mosquitoes reveal shared phage rearrangements across large geographic distances

09:40     Thibault JOSSE

Discovery of endogenous viral elements in *Campopleginae* wasps suggest widespread nudivirus domestication

10:00     Jesus MENDEZ LEYVA

Distinct host-endosymbiont co-evolutionary trajectories in cereal weevils

10:20     Jonathan FILÉE

Genome evolution and between-host transmission of *Spiroplasma* endosymbiont in wild communities of Morpho butterflies

**10:45**     **BREAK**

**11:15**     **"Extended phenotype" Session**

11:15     Antoine GUIGUET

Rôle du venin dans l'induction des galles de Cynipidés : une approche omique comparative

11:35     Justine BOUTRY

First evidence for the evolution of host manipulation by tumors during the long-term vertical transmission of tumor cells in *Hydra oligactis*

**11:55**     **Presentation of SYMBIOTRON**

**12:15**     **LUNCH offered by REID**

**13:15**     **POSTER Session**

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|--------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>14:15</b> | <b>"One health" session (1/2)</b>                                         |                                                                                                                                                |
| 14:15        | Axelle GENTIL                                                             | Spatiotemporal dynamics of breeding site composition: which impact on the asian tiger mosquito biology and behaviour ?                         |
| 14:35        | Raphaël JORGE                                                             | Functional analyses of interactions between bedbugs and their symbionts <i>Wolbachia</i> and <i>BEV-like</i>                                   |
| 14:55        | Pierre ANTONELLI                                                          | Microbiota influence on mosquito larvae mediate glyphosate toxicity                                                                            |
| 15:15        | Louise CHEYNEL                                                            | Effet de la pollution lumineuse sur l'immunité d'un vertébré nocturne, le crapaud commun.                                                      |
| <b>15:35</b> | <b>BREAK</b>                                                              |                                                                                                                                                |
| <b>16:05</b> | <b>"One health" session (2/2)</b>                                         |                                                                                                                                                |
| 16:05        | Claire LOISEAU                                                            | Effects of microplastics on mosquito development and avian malaria transmission                                                                |
| 16:25        | Valentin CHAUVIN                                                          | Adaptive Phenotypic Plasticity of <i>Plasmodium</i> in Response to Environmental Cues                                                          |
| 16:45        | Mélody LEBRUN                                                             | Impact des vagues de chaleur sur la Maladie de l'Anneau Brun induite par <i>Vibrio tapetis</i> chez la palourde <i>Ruditapes philippinarum</i> |
| 17:05        | Justine BOUTRY                                                            | Heatwave on 'Off-Host' Parasite Stages: Reduced Infection Risks and Costs in <i>Pasteuria ramosa</i> - <i>Daphnia magna</i> system             |
| <b>19:00</b> | <b>"Conférence Grand public" (Lyon 7<sup>ème</sup>)<br/>Fabrice Vavre</b> |                                                                                                                                                |
|              |                                                                           | "Je suis un écosystème dans l'écosystème : la santé unique à tous les étages"                                                                  |
| <b>20:00</b> | <b>Lets meet at "La Commune"</b>                                          |                                                                                                                                                |
|              |                                                                           | 3 rue Pré-Gaudry Lyon 7 <sup>ème</sup><br><a href="https://lacomune.co/">https://lacomune.co/</a>                                              |

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| <b>Wednesday 14th May 2025</b> |                                        |                                                                                                                          |
| <b>09:00</b>                   | <b>Keynote speaker:<br/>Jens Rolff</b> | Why did complete metamorphosis of insects evolve?                                                                        |
| <b>10:00</b>                   | <b>"Microbiome" session</b>            |                                                                                                                          |
| 10:00                          | Joël MEUNIER                           | Microbiome turnover during offspring development varies with maternal care, but not moult, in a hemimetabolous insect    |
| 10:20                          | Fanni BORVETÖ                          | Impact of the Varroa Mite on the Microbiota of <i>Apis mellifera</i> and <i>Bombus terrestris</i>                        |
| <b>10:40</b>                   | <b>BREAK</b>                           |                                                                                                                          |
| <b>11:10</b>                   | <b>"Coévolution" session</b>           |                                                                                                                          |
| 11:10                          | Jean-Michel DREZEN                     | Evolution of bracoviruses, insights from the genome of <i>Toxoneuron nigriceps</i> a parasitoid wasp from Cardiochilinae |
| 11:30                          | Églantine MATHIEU-BÉGNÉ                | If the door is locked, take another one: Evolution of alternative entrance points for a parasite                         |
| 12:10                          | Giacomo ZILIO                          | Bridging multiple infections across scales: from co-circulation to co-infection                                          |
| <b>12:30</b>                   | <b>End of REID &amp; conclusion</b>    |                                                                                                                          |
| <b>12:40</b>                   | <b>LUNCH offered by REID</b>           |                                                                                                                          |

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| 13:40 | "Immuno-ecology" session        |                                                                                                                                                                               |  |
| 13:40 | Alexandre GOERLINGER            | Inefficiency of immune priming via the oral route and prevalence of injuries in <i>Tenebrio molitor</i> reinforce the hypothesis of a wound-driven evolution in adult beetles |  |
| 14:00 | Louis PAILLER                   | Reproduction-immunity trade-off in females of the European earwig                                                                                                             |  |
| 14:20 | Simon DE WEVER                  | Immune cost of maternal care towards eggs and juveniles in the European earwig                                                                                                |  |
| 14:40 | Vincent DOUBLET                 | Drivers of sex differences in insect immunity                                                                                                                                 |  |
| 15:00 | BREAK                           |                                                                                                                                                                               |  |
| 15:30 | "Effectors of immunity" session |                                                                                                                                                                               |  |
| 15:30 | Auréline LALOUE                 | Investigating the IMD pathway in the bedbug <i>Cimex lectularius</i> and its function in the control of infections and mutualistic symbioses                                  |  |
| 15:50 | Céline ZATYLN-YGAUDIN           | Identification of new antimicrobial peptides in <i>Armadillidium vulgare</i> using PepTraq                                                                                    |  |
| 16:10 | Mélanie BRETTON                 | Immune regulation of the bacterial microbiota of the tiger mosquito in response to interference with de novo production of aromatic amino acids                               |  |
| 16:30 | Sarah DAMETTO                   | Deciphering the molecular dialogue between the trematode parasite <i>Schistosoma mansoni</i> and its intermediate host snail <i>Biomphalaria glabrata</i>                     |  |
| 16:50 | End of IMMUNINV & conclusion    |                                                                                                                                                                               |  |
| 17:00 | Closure of the conference       |                                                                                                                                                                               |  |

| POSTER session - Tuesday 13th May 2025 13:15-14:15 |                            |                                                                                                                                              |
|----------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1                                                  | Amandine AVILES            | Impacts of Microplastics on Mosquito Life History Traits and midgut microbiota                                                               |
| 2                                                  | Christine BRAQUART-VARNIER | Chronic exposure of Cadmium leads to deleterious effects on <i>Armadillidium vulgare</i> immune cell's mitochondria                          |
| 3                                                  | Alice BRUNNER              | Distinct Dynamics of <i>Wolbachia</i> and its pWCP Plasmid During <i>Culex</i> Mosquito Development                                          |
| 4                                                  | Camille-Sophie COZZAROLO   | Size- and sex-biased gene expression in the acanthocephalan parasite <i>Neoechinorhynchus agilis</i>                                         |
| 5                                                  | Yann DUSSERT               | Dumpster diving into sequencing data to uncover unknown microorganisms involved in symbiotic relationships in marine species                 |
| 6                                                  | Bernard DUVIC              | Transcriptional response against biocontrol agents in the agricultural pest <i>Spodoptera frugiperda</i> (Lepidoptera: Noctuidae)            |
| 7                                                  | Noor FATTAR                | Multi-scale evolutionary convergence of nutritional symbionts in ticks                                                                       |
| 8                                                  | Pierre GREVE               | Identification and expression of potential feminizing factors in the three <i>Wolbachia</i> strains infecting <i>Armadillidium vulgare</i> . |
| 9                                                  | Henri Séraphin ESSOMBA     | Diversité et dendrologie des cacaoyers d'une agroforêt en zone de forêt dense et humide de l'Est-Cameroun                                    |
| 10                                                 | Jordy LARGES               | Variation in the duration of the immune protection after priming stimulation among populations of <i>Tenebrio molitor</i>                    |
| 11                                                 | Marie PANZA                | Invasion-driven changes in <i>Drosophila</i> and their parasitoid communities along a latitudinal gradient in the Rhône valley               |
| 12                                                 | Romain PIGEULT             | Within-host tissular heterogeneity is associated with phenotypic but not genomic diversity in <i>Wolbachia</i> endosymbionts                 |
| 13                                                 | Philippe REMIGI            | Plant-mediated selection of nitrogen-fixing symbiotic bacteria                                                                               |
| 14                                                 | Diego SANTOS GARCIA        | Symbiotic communities of <i>Planococcus ficus</i> (vine mealybug)                                                                            |
| 15                                                 | Charlotte TANNEAU          | Symbiotic control as an alternative of insecticides used to control bedbugs ( <i>Cimex lectularius</i> ) based on a One Health approach      |