



EVENET – An eco-evolutionary network of biotic interactions

SEMINAR:

Dual transcriptomics of birds with malaria

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Location: lecture room 11th floor

Abstract: Malaria parasites engage in an endless evolutionary battle with the vertebrate immune system. The way hosts control and suppress malaria infections on a molecular level, both during acute and subsequent phases of infection, remains poorly understood. We experimentally infected Eurasian siskins (*Carduelis spinus*) with avian malaria parasites (*Plasmodium* spp.), and used high-throughput dual RNA-sequencing to measure the avian transcriptome in blood collected before infection, during peak infection, and when infection was decreasing. Furthermore, we assembled the transcriptome of the malaria parasite *de novo*, and evaluated the expression of parasite genes during the course of the infection. By analysing genome-wide expression in the blood using RNA-sequencing, we gained a much more complete view of, not only the host's molecular response to malaria, but also the counter strategies simultaneously employed by the parasite.