

Seminar

Genetics and evolution of insect sex determination mechanisms

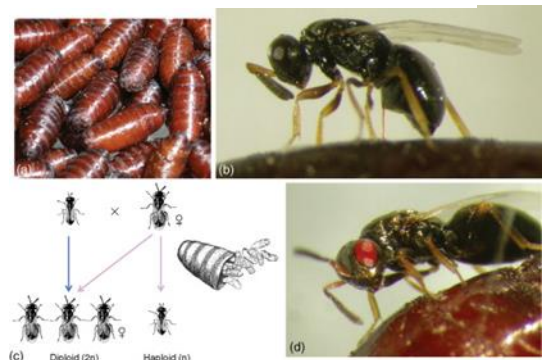
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Despite being a fundamental developmental process, insect sex determination mechanisms are diverse and evolve rapidly. In many groups sex is determined by specialised sex chromosomes, such as male heterogamy (XX-XY) or female heterogamy (ZZ-ZW). These sex chromosomes carry the primary signals, dominant male or female determiners, or counting elements, that initiate a cascade of regulatory genes to determine sex and downstream sexual differentiation. Some groups reproduce by haplodiploidy, with haploid males developing from unfertilized eggs and diploid females developing from fertilized eggs.

Recent progress in the molecular genetic basis of sex determination in insects will be present with focus on systems that have been studied for many years, such as the polymorphic sex determination system of houseflies and the haplodiploid mechanism of *Nasonia* parasitic wasps.



Tuesday 28th November 2023

DISTAL – Bologna, Room 12 or on Teams

Registration recommended, please contact Santolo Francati: santolo.francati2@unibo.it

Teams link: [https://teams.microsoft.com/l/meetup-](https://teams.microsoft.com/l/meetup-join/19%3ameeting_YzIwZGI0OGEtNzEyYy00NmI5LTlhMWUitNTRmZWQ4MmExNjg3%40thread.v2/0?context=%7b%22Ti)

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