

# JAMES RENNIE BEQUEST

## REPORT ON EXPEDITION / PROJECT / CONFERENCE

**Expedition/Project/  
Conference Title:** II Joint Congresses in Evolutionary Biology

**Travel Dates:** 17th-23th August, 2018

**Location:** Montpellier (France)

**Group member(s):** Andrés G. de la Filia

**Aims:** Present my PhD research, network with fellow scientists, catch up with latest research in evolutionary biology

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### **OUTCOME (not less than 300 words):-**

The James Rennie Bequest contributed to my attending to the II Joint Congresses in Evolutionary Biology, which was held in Montpellier (France) on August 19th-22th, 2018. Joint congresses in evolutionary biology take place every six years and are jointly organised by the world's main academic societies in the field: the European Society for Evolutionary Biology, the American Society of Naturalists, the Society for the Study of Evolution and the Society of Systematic Biologists. This year's congress became the largest meeting in evolutionary biology in history, with more that 2,700 delegates, over 800 talks within 78 thematic symposia and more than 1,200 poster presentations, in addition to a number of workshops on related topics, such as science communication, public outreach and policy.

I presented a poster combining data and results from two of my PhD thesis chapters: "Genome-wide patterns of gene expression under Paternal Genome Elimination (PGE)". My PhD research focuses on a non-canonical reproductive system in arthropods, paternal genome elimination (PGE), a pseudohaplodiploid genetic system where males are diploid but systematically transmit maternally-inherited chromosomes only, while the paternal homologues are excluded from sperm. In many PGE species, paternal chromosomes are silenced early in development and are thought to remain inactive. In my poster, I presented a parent-of-origin allele-specific transcriptome analysis in hybrid mealybugs, showing that gene expression is globally biased towards the maternal genome under PGE, as expected under silencing of paternal alleles, but also that paternal chromosomes retain partial activity in both in somatic and reproductive tissues.

The poster session was very successful, as my presentation attracted some interest and I received interesting feedback that I was able to incorporate into my thesis, which I successfully defended two months later. More generally, the congress was also beneficial to my career as I had the opportunity to network with many researchers and attend a great number of oral presentations to learn about the latest theoretical and empirical developments in evolutionary biology, a much-needed catch-up after months of exclusive dedication to writing my thesis. I am therefore very grateful to the James Rennie Bequest for their travel funding, as I was very satisfied with my attendance to the Joint Congress.