

Understanding plant biology and evolution using genomics

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Raquel Tavares and Gabriel Marais are two visiting scientists from the University of Lyon (France) who are doing a one-year visit in the LEAF Department at ISA (hosts: Prof. Elsa Gonçalves and Prof. Antero Martins).

Raquel is going to talk about her work on molecular evolution analysis that tries to establish the link between gene duplication and functional evolution. She will talk about different projects she's involved in using this approach (namely the origin of the Angiosperms flower and the evolution of the secondary metabolism in grapevine).

Gabriel is going to present his work on dioecy (separate sexes) and sex chromosomes in plants. These last years, he and his group have developed non-standard methods to study sex chromosomes. These methods have been applied to wild model plant systems (e.g. *Silene latifolia*) and also to crops (e.g. *Cannabis sativa*, grapevine). These results provided information on the evolution of dioecy and sex determination in plants, and tools to improve crop management.