

IBIOL EXTERNAL SEMINAR



30 October 2025



12:15–13:15



ROOM F 200



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Sanctioning of non-mutualistic rhizobia in nitrogen-fixing Legume-Rhizobium symbiosis

In plant-microbe interactions, the host plant invests considerable amounts of resources in the microbial partner until the symbiotic machinery is established. If the microbial partner does not reciprocate with a comparable symbiotic benefit, the interaction represents a parasitic relationship. This is thought to elicit a plant's response to prevent the disadvantage of being parasitized by such microbial cheaters (sanctioning). Using *Medicago truncatula*–*Sinorhizobium meliloti* interactions, manipulations of resource exchange showed that cheating triggers host sanctions, including defense activation, repression of symbiotic markers, and metabolic shifts that may restrict microbial fitness contributing to sanctioning.