

--- 2618 nodes

--37834 conectors

-Only plant-fungi poroteins interactions

H. vastatrix X C. canephroa

interactome

(Castro & Barreiros et al 2022)

--7569 nodes

-63592 conectors

Only plant poroteins interactions

C. canephroa interactome

STRING database v 11.5

Transcriptomic e interatomic profiling of the *Coffea-Hemileia vastatrix* pathosystem

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Introduction: The fungus Hemileia vastatrix is the pathogen that causes coffee leaf rust, a devastating disease in coffee production worldwide. Knowledge of pathogen attack strategies and how the plant defends itself during plant-pathogen interaction is crucial for the development of control alternatives. However, the Coffea-H. vastatrix interaction is still poorly studied. This study aimed to investigate the gene expression profile and analyzed interactome of putative candidate genes associated with coffee resistance to *H. vastatrix*.

Materials/Methods

3th degree network

-1250 nodes -23945 interactions

Global interactome

--9196 nodes

101426 conectors

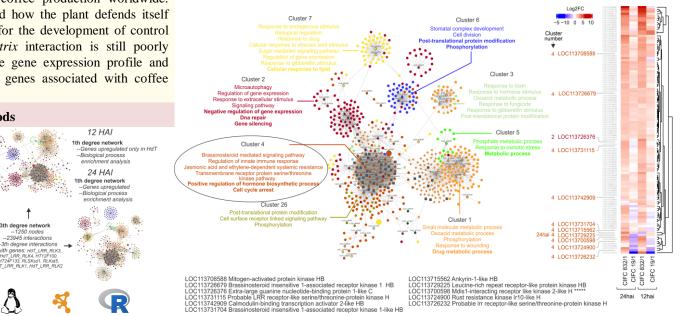
--plant-fungi poroteins interactions

plant-plant poroteins interactions

-Cluster analysis

--Centrality analysis

Results/Discussion



Conclusion/Perspectives: The analysis of protein-protein interactions and biological processes involved in these interactions allowed the description of new candidate genes acting directly on the coffee resistance to *H. vastatrix*. The results are valuable for breeding programs aimed at developing coffee cultivars with durable resistance, in addition to enabling a better understanding of the Coffea-H. vastatrix pathosystem.

References: Castro, I. S. L., Barreiros, P. R. R. M., Mendes, T. D. O., Florez, J. C., Silva, E. D. A., Porto, B. N., ... & Caixeta, E. T. (2022). Gene Funding: CNPq, FAPEMIG, CBP&D/Café and INCT-Café expression and interactome analysis of candidate effectors associated with pre-and post-haustorial Hemileia vastatrix-coffee interaction.