

Cloning of *Phytophthora capsici* effector genes to guide the development of resistant pepper varieties.

PERSPECTIVES

Our sequence data set will be further studied to identify if it contains other expressed effectors, whatever the RXLR or other types, compared to those already known in the library of *P. capsici* effectors. The differential analysis between the different samples will be pursued to determine the effector genes significantly expressed at early step after inoculation and especially in the resistant pepper genotype whatever the tested isolate. We will further analyze the diversity of these target effector genes within the collection of *P. capsici* isolates maintained at INRA UR GAFL, to identify those who are under strong selective pressure. The latter will then be cloned and used to screen the pepper germplasm collection maintained at UR INRA GAFL, to identify accessions showing a hypersensitive response (HR) to the expression in planta of target effectors. The identified pepper accessions potentially bring sustainable resistance to *P. capsici* ; the genetic determinism of resistance will then be studied.

Responsable :

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