**Abstract - Study of COS-OGA effect on the verticillium wilt of fiber flax**

Verticillium wilt on flax is an arising problem in Western Europe caused by the telluric fungus *Verticillium dahliae* Kleb. This disease affects fiber flax and leads to important yield losses and depreciated fibers. While no resistant cultivar and no chemical pesticide exists, the induction of plant innate immunity constitutes a promising biological plant protection alternative, e.g. the COS-OGA elicitor. This complex of chitosan oligomers (COS) and pectin-derived oligogalacturonides (OGA) mimics the interaction between plants and fungal pathogens and thereby activates plant defenses.

The aim of this study is to evaluate the protection conferred by two COS-OGA formulations, FytoSave and FytoSol, on different fiber flax susceptible cultivars against *Verticillium dahlia,* and to understand its mode of action.

This thesis is part of the PATHOFLAX project (INTERREG), a cross-border collaboration between France and Belgium, including industrials, universities, research organisms and farmers.