CLONING, EXPRESSION AND PURIFICATION OF TWO PROTEINS RELATED TO PATHOGENICITY IN *XYLELLA FASTIDIOSA*.

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Xylella fastidiosa, a gram-negative bacillus, is an important phytopatogen of many species, responsible for great losses in the national and international agriculture. In *Citrus* the bacteria provokes the Citrus Varigated Chlorosis, deeply affecting the national citric production. In this work, attempting to meet their physic-chemical characteristics as well their structure, two proteins of *X. fastidiosa* are studied, one correspondent to *orf XF*1532 and the other to *XF*2135 that showed respectively high similarity with a oxidative stress transcriptional regulator, OxyR, of *Xanthomonas campestris* and a polyketide synthase of *Streptomyces roseofulvus.* The protein correspondent to the orf *XF*2135 possesses a DsbA domain that catalyzes disulfide bounds in proteins allowing them to get to their correct structure and consequently their correct function. Both proteins may be involved in the pathogenicity ways of *X. fastidiosa*.

The orfs were cloned in the pSV282 vector that adds to the protein product a MBP (maltose binding protein) which helps to solubilize the expressed product. The protein *XF*2135 was expressed in E. coli BL21 (DE3) and obtained in the soluble fraction. Purification was taken by affinity chromatography. Enzymatic cleavage test to remove the fusion protein (MBP) is in progress. The *orf XF*1532 is already cloned and the expression test is in progress.

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