



UNIVERSITÀ  
DEGLI STUDI  
DI MILANO

## **Tunisian Italian Cooperation Project B2, 2004-2007**

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### **Project title:**

Analysis and bio-informatic assay of fruit and vegetable poly-phenol, bioflavonoid compounds and peptides. Use of chemical and enzymatic methods in PPO investigation.

The PPO enzyme was purified from the Quince fruit and biochemical and molecular characterized, the enzymes has been tested to detect pesticides with biochemical methods. The PPO gene was also analysed by bio-informatic modeling to investigate the gene sequence.

The allosteric behavior of the PPO as revealed by the bio-informatic analysis (Molecular Docking) was confirmed by experimental study. The bio-informatic tool allowed the elucidation of the molecular mechanism of the PPO catalyses.