REDESIGN OF CARNITINE ACETYLTRANSFERASE SPECIFICITY BY PROTEIN ENGINEERING

ANTONIO FELIPE GARCIA CORDENTE

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The objectives of the present thesis are

1. Identification of the amino acids responsible for the different acyl-CoA chain-length specificity of the members of the carnitine acyltransferase family.

2. Identification of the amino acids involved in choline-carnitine discrimination in the carnitine acyltransferase family of proteins.

3. Analysis of the effect of overexpressing CrAT on ester production during alcoholic fermentation in yeast and its possible biotechnological applications.