



**UNIVERSITAT  
ROVIRA i VIRGILI**

FROM LABORATORY TO INDUSTRY: OPTIMISATION OF  
PRODUCTION CONDITIONS OF THE ANTIHYPERTENSIVE  
PROTEIN HYDROLYSATE HPP11 AND ITS PILOT SCALE-UP

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Final Biochemistry and Molecular Biology Degree Project

In cooperation with Nutrigenomics Research Group, Universitat Rovira i Virgili.



Grup de Recerca

**NUTRIGENÒMICA URV**

The present work has been carried out based on the external traineeship corresponding to the degree in Biochemistry and Molecular Biology. Tutorized by Francisca Isabel Bravo, Biochemistry and Biotechnology Department and Co-supervised by Manuel Suárez Recio, Biochemistry and Biotechnology Department.

This work is confidential. For this reason, a confidentiality agreement has been signed. The public abstract for the institutional repository is the following one:

“The aim of this study was to optimize the obtention process for Hpp 11 to scale it up at a pilot-scale level. Firstly, the raw material/solvent ratio in the preparation of the broth from fresh chicken feet was optimized, and the effect of the thermal drying process of the chicken feet used to prepare the broth was studied. The hydrolysis parameters were also optimized using a response surface methodology. The hydrolysate was obtained on a pilot scale. This study has allowed to scale up the production of Hpp11, reducing the steps and costs while maintaining the bioactivity of the hydrolysate.”

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