

# Noemi Alberici



**KEY-WORDS:**  
 PLANT PROTEINS · ENZYMES · SOLUBILITY ·  
 INNOVATIVE PROCESSES · NEW PRODUCTS

## PROFILE

I am a first-year PhD student in Food Technologies specialized in vegetable proteins and their properties.

## AFFILIATION

Department of Food Science and Technology for a Sustainable Food Supply Chain (DiSTAS),  
 Università Cattolica del Sacro Cuore.

## LANGUAGES



Mother language



Level B2

## HOW TO REACH ME

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## Reference Contact

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## PROJECT TITLE

### Isolation and functionalisation of plant proteins

#### Steps of the research

- In-depth literature survey on the most recent international papers and acquisition of knowledge and methods.
- Trials of plant proteins inclusion in different food formulations (e.g. emulsions and biscuits).
- Investigation of innovative extraction processes (Pulsed Electric Field and hydrolytic enzymes).
- Exploration of functionalisation techniques of extracted proteins (hydrolytic enzymes and conjugation with natural antioxidant extracts).
- Definition of extraction process variables.
- Definition of the functional properties of extracted plant proteins and their possible food applications.

#### Main Results

Correlation between protein extraction yield and different operating conditions. Proteins from different vegetable sources have different functional properties. Other results are underway.

#### Research Contribution

Isolated proteins with good functional, nutritional and organoleptic properties would encourage the development of innovative products.

Plant proteins compared to animal proteins have a higher production efficiency, reduced the LCA and beneficial effects on glycemic control in people with diabetes.

#### Collaborations

Technical University of Denmark - in the short future

#### Why should you care?

The increasing demands for food security in combination with the request for sustainable sources and environmentally friendly production has led to new investigations into assessing the antioxidant potential of biologically active peptides generated from protein hydrolysates.