Characterization of bovine co-products for the protein enrichment of food intended for undernourished populations

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Ph.D. fellowship

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2020-2023

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Science et technologie du lait et de l'œuf

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Bioactivity and Nutrition

Keywords

Animal protein

Functionality

Bioavailability

In vivo digestion

Socio-economic context

Increasing food needs in line with global demographic growth induce:

➢ Nutritional issues:

Availability of quality protein resources

➢ Environmental issues:

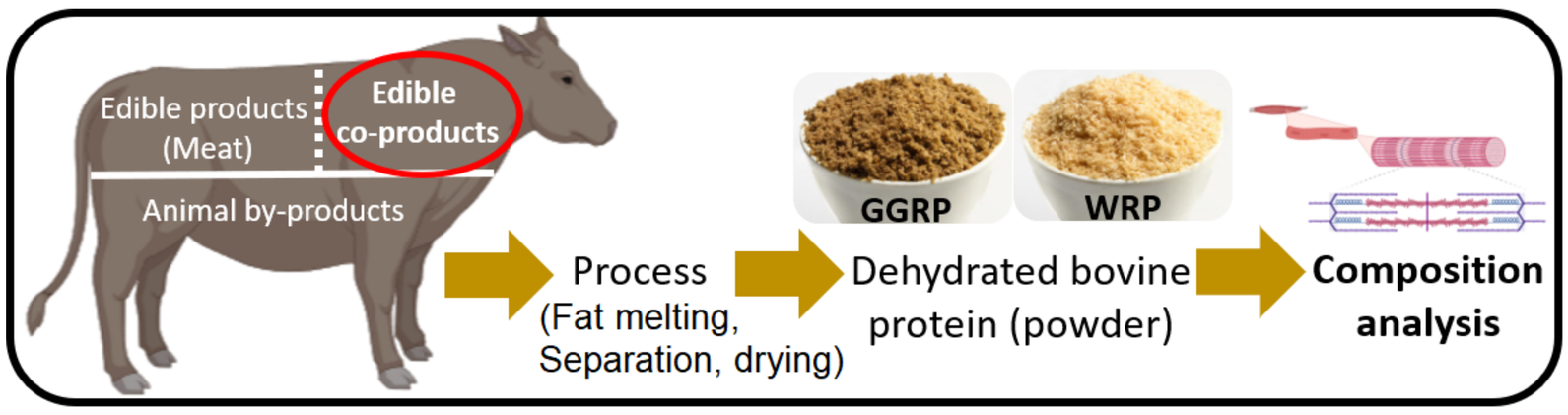
Imagine sustainable solutions to meet this growing demand for protein resources of high nutritional quality

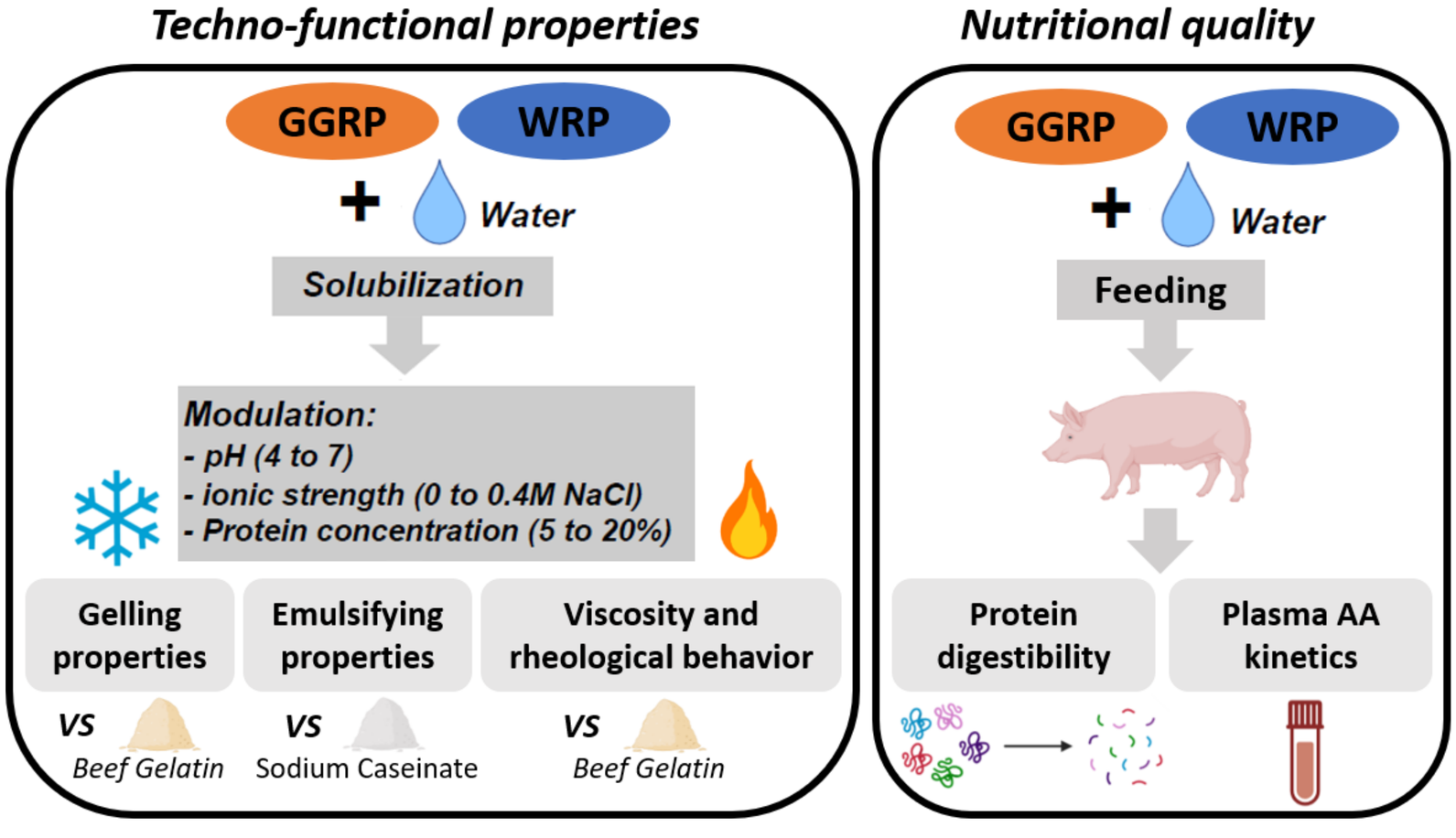
Scientific context

- Improve the extraction and efficiency of use of proteins from raw materials, in particular by upgrading co-products, while improving the functionality of protein ingredients
- Dehydrated proteins from bovine co-products are not valued in line with their quality (nutritional and techno-functional properties)

Research question

Can bovine co-products from the fat rendering process be interesting functional and nutritional ingredients in human food ?





Funding

L'INSTITUT agro Fondation

CHAIRE MIEUX PRODUIRE POUR MIEUX MANGER • DE L'AGRICULTEUR AU CONSOMMATEUR

Collaborators

agro Mousquetaires

CORNILLE

STLO

INRAE L'INSTITUT agro Rennes Angers

Expected Results

- Position the ingredients in the field of texturizers (gelling agent, emulsifier, thickener) and understand their behavior according to the conditions of the environment (pH, ionic strength, temperature)
- Evaluate the nutritional value of protein ingredients (*in vivo* digestibility)

Perspectives

- To establish recommendations for conditions to be used as texturizing ingredients
- To determine nutritional quality in order to formulate mixes adapted to nutritional strategies
- To acquire knowledge on the link between biochemical and nutritional properties of food