



# Improvement of functional properties of poultry gelatin by high pressure processing (HPP)

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**Project timeline: June 2013 – December 2013**

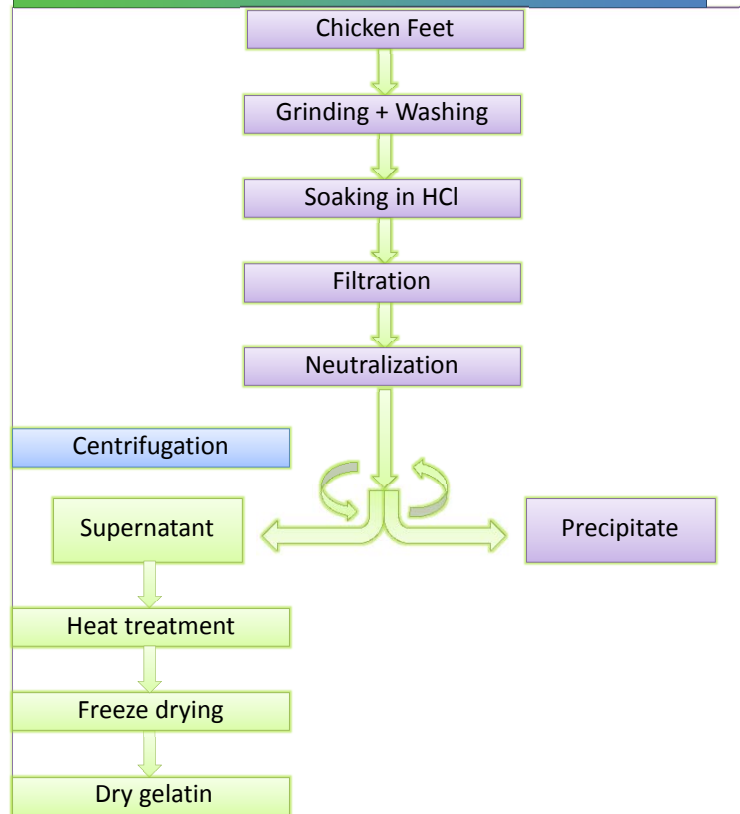
## Introduction

- Gelatin is a multifunctional biopolymer widely utilized in many food and non-food applications (e.g. pharmaceutical applications).
- High pressure processing is not only used as a non-thermal preservation method, but also used as a food texturization method through protein modification.
- The application of high pressure processing to poultry gelatin induces changes in molecular weight distribution and viscoelastic properties of gelatin.
- Treatment of poultry gelatin with high pressure may improve the thermodynamic stability of gelatin gel.

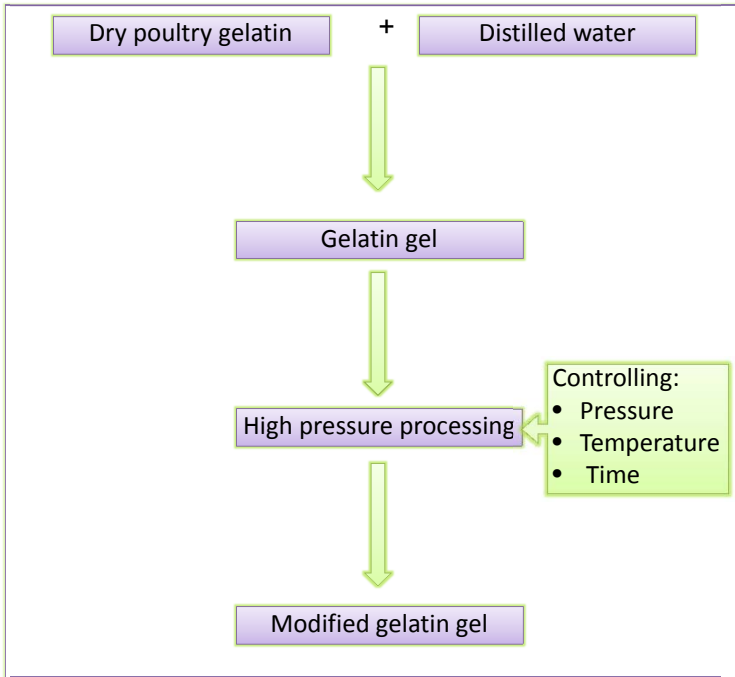
## Objective

- This research aims to improve the rheological properties of poultry gelatin gel (in particular the setting time and the melting temperature) through the utilization of high pressure processing (HPP).

## Our plan/ Materials and Methods



## Our plan/ Experimental design



- Determination of setting time and melting temperature for each sample will be performed using a Physica Rheometer under controlled stress oscillatory mode.

## Key benefits

- Improving the functional properties of poultry gelatin by lowering its setting time and elevating its melting temperature;
- Improving the thermal stability of poultry gelatin gel;
- Potential benefit to the poultry producers by presenting an opportunity to obtain high quality gelatins from low value poultry by-products;
- Quick-set gelatin can reduce the production cost for food processors.

Many thanks to our sponsor



## Contact Information

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