

## **Aspects of physical and chemical alterations to proteins during food processing – some implications for nutrition**

### **Abstract**

In this paper, we give an overview of our research exploring the impact of physical and chemical processing on food proteins. There are three themes, applied to the proteins of wheat, soya, egg and dairy foods. Firstly, the impact of the Maillard reaction on food proteins is discussed, with a particular focus on how the reactions might be harnessed to manipulate food texture. Secondly, the potential of enzymatic protein-protein crosslinking is considered, especially the enzyme transglutaminase. Thirdly, the broader question of how the aggregation of proteins within a food is altered by chemical and physical modification and how, in turn, this might impact on the overall nutritional quality of the food is considered.