

## **Correcting the Deficiency of Dietary Dairy Produce in the Elderly Reduces Fractures and Preserves Bone Strength**

**Period:** September 2012 - April 2016  
**Budget:** 18.081.000 DKK  
**Funding:** The Danish Milk Levy Fund (Mælkeafgiftsfonden)  
Dairy Australia  
**Project manager:** Leif Mosekilde  
**Institution:** Aarhus University Hospital, Department of Endocrinology and Internal Medicine  
**Collaborators:** Lars Rejnmark, Aarhus University Hospital, Department of Endocrinology and Internal Medicine

### **Aim and Description:**

Fractures and falls are a major public health problem in the elderly and may in part be due to a too-low intake of calcium and protein causing frailty. In an international collaboration between Denmark and Australia, we aim to assess beneficial effects of increasing daily intake of dairy product by 1-2 servings per day. A total of 3600 elderly Australians living in the multiplicity of Melbourne will be randomly assigned to either no intervention or an intervention by which daily intake of dairy product is increased. The study will be performed in a blinded manner i.e. the increased intake of dairy products will be incorporated in the normal diet in such a manner that the elderly will not experience the changes. The study aims to show a 30% reduction in risk of fracture in response to the intervention. Moreover, risk of falls and cardiovascular events will be assessed as well as mechanisms of actions by which the intervention works will be explored in terms of effects on biochemical indices, bone density and structure and muscle- and balance function. A Danish research fellow from Aarhus University will take part in the conduct of the study. If beneficial effects are shown, the study will provide credible, compelling evidence for a safe, low cost, widely available approach to reduce the burden of fractures and improve general health in the elderly.