**Title (English)**

**Evaluation of Pattern Recognition Methods Applied to In Vitro IgE Measurements**

**Abstract**

Food allergens from the plant kingdom are an important source of allergic reactions which are difficult to diagnose. Methods that can visualise relationships between these allergens are therefore needed. The main aim of this project was to evaluate pattern recognition methods for visualisation of multidimensional measurements of immunoglobulin E (IgE) in blood sera. Multidimensional scaling (MDS), a method for visualisation of multidimensional data in a reduced space, was evaluated and tested on IgE data from three patient groups with different IgE reactivity to cereals and grass in order to reveal relationships between food allergens from the plant kingdom. The results show that MDS is a useful and robust method for visualisation of IgE data.

**Keywords**

allergy, IgE, pattern recognition, multidimensional scaling

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**ISSN 1401-2138**

**Classification**

Secret until 2007-08-31

**Supplementary bibliographical information**

**Pages**

58