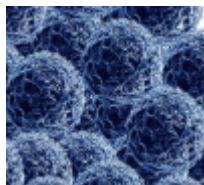




RIKILT

WAGENINGEN UR

## Development of Surface Plasmon Resonance-based biosensor for engineered nanoparticles detection



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**Cluster:** Biosensors & Bioassays  
**Date:** Minimum 6 months, starting: January 2011

### Candidate qualifications

Motivated student for thesis or internship. Background in biochemistry, critical scientific judgment and ability to plan and conduct experiments independently are desired.

### Short introduction

Currently, nanotechnology applications for the food sector are intensively investigated and developed. A number of nanomaterials are already in use as food additive or in food contact materials. At the same time, very limited knowledge is available on the potential impact on consumers' health. This leads to a situation of insecurity, both for consumers and food industry.

There is an urgent need both for official food control entities and industry for analytical methods that allow the detection of ENP in food. New EU project, NanoLyse, focuses on the development of validated methods and reference materials for the analysis of engineered nano-particles (ENP) in food and beverages.

One of the goals within the project is to develop a rapid screening method to allow the distinction between samples which contain ENP and those that do not. The methods will be characterised by minimal sample preparation, cost-efficiency, high throughput and will be achieved by the application of Surface Plasmon Resonance-based biosensor.

The developed method will cover several relevant classes of ENP with reported or expected food and food contact material applications, i.e. nano-aluminum, nano-titanium, nano-silica and organic nanoencapsulates.

### *What we offer*

Expert guidance during the internship. Next to that a monthly internship compensation of € 295,--.