



Student Project

(Afstudeeronderzoek - final year project - Diplomarbeit)

***In vitro* prediction of bioaccessibility and bioavailability of various phytochemicals**

Duration of project: 9 month in 2009 (i.e. start in Jan, Feb or March 2009 possible)

Project:

Recently, the bioavailability of a novel group of phytochemicals was determined in an *in vivo* study. The phytochemicals of interest were formulated in several different ways to test which formulation delivers optimal bioavailability. However against our expectations, measured absolute bioavailability was surprisingly similar - independent of type of formulation. We now would like to explore the reasons for this using several *in vitro* approaches (rheology, dissolution, *in vitro* digestion, cell culture). The student has the opportunity to experience working within an industrial R&D setting, apply advanced methods and insight and get access to state-of the art instrumentation.

Techniques used:

in vitro digestion models, Caco-2 cell culture, material science techniques, HPLC or LC-MS/MS, etc.

Student:

We are looking for an enthusiastic, hard-working person with a background in food technology, physical chemistry, biochemistry, nutrition or related subjects who enjoys pursuing a research question until it is solved, develops own problem solving strategies and works independently and self-motivated. The candidate should have laboratory experience and ability to communicate in English (oral and written) is a must as Unilever is an international company where English is the standard.

Location:

Unilever R & D Vlaardingen (URDV) is the global knowledge and research centre for nutrition, health and functional foods within Unilever. It is located near Rotterdam, a modern city with many cultural activities (1 hour train ride from Amsterdam). A major activity of the URDV is the identification and efficacy testing of food ingredients with health benefits.

Unilever (170,000 employees in 90 countries) is dedicated to meeting the everyday needs of people everywhere and raising the quality of life through its products and services. Around the world our foods and home and personal care brands, such as Knorr, Dove, Bertolli, SlimFast, Cif, Axe, Magnum, Lipton, and Becel/Flora/Fruit d'Or are chosen by individual consumers 150 million times a day.

Application:

For more information about the project please contact Dr. Brigitte Graf, e-mail brigitte.graf@unilever.com or send your CV with a cover letter detailing your previous lab experience and your motivation.