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News from the secretariat of the Graduate School VLAG

Currently researching.... VLAG

The spectrum of our discipline specific courses keeps broadening. This year a few new courses, such as The future genomic society, Bionanotechnology, Metabolomics and Nutrition communication, are added to our curriculum. Successful crosspollination with other organisations results in innovative multidisciplinary educational activities. One example is the Erasmus Intensive Programme 'Food and Health' with twenty European partners that joined forces to set up a series of international PhD-courses on the crossroads of these two scientific domains. The first edition of this course will be

organised in Paris from 22nd August until 2nd September. The number of participants per partner organisation is limited to three. Therefore, we will approach suitable VLAG candidates via their thesis supervisors. Application for funding of the second edition is in the pipeline and hopefully we will be advertising this course next year as well.

The popular and highly valued VLAG course 'Successful functioning in organisations' has undergone a substantial change. The concept has been broadened and is now placed under the umbrella of the Wageningen Graduate Schools in the form of

the course 'Career Perspectives'. The first two editions of the course started with a Job market during which representatives of research institutes, governmental agencies and private sector provided insights into career development perspectives within their organisations. Personal stories of Wageningen alumni, their choices and consequent career steps were specially valued. Last, but certainly not the least, the fifth edition of VLAG Current Research is on its way to the publisher. Thank you for your 270 contributions!

Vesna Pršić

EDITORIAL

Dear readers,

In this VLAG-FLASH you can read about the PhD-student study tours of Food Microbiology and Organic chemistry, they went to South-Africa and to San Francisco (USA) respectively.

We like to congratulate Thijs Kaper (WU) and Ramon Langen (UM) (former PhD students from VLAG) who received both a VENI award from NWO!

Eva Kovacs wrote about her live after defending your PhD thesis, she did her PhD at the University of Maastricht and is today working at Unilever Research.

Furthermore the VLAG-FLASH covers news from the VLAG Secretariat, the PhD council and upcoming courses. And of course there is an overview of new PhD projects and dissertations.

And we are happy to announce the VLAG PhD party (for VLAG and NUTRIM PhD students!) The party will be held on the 17th of June and an invitation will follow!

Kind regards,
 The editorial board

You can reach the editorial board of the VLAG-FLASH by e-mail at ingeborg.vanleeuwen-bol@wur.nl maaike.schutte@wur.nl

PhD students Laboratory of Organic Chemistry went on a study tour to San Francisco, April 9 – 22, 2005.

While on the plane from San Francisco to Amsterdam via Cincinnati, and a VLAG flash deadline quickly approaching, what better way to pass the time than taking the opportunity to look back on our very nice PhD-trip in the San Francisco area. From April 9 until April 22, we visited San Francisco with 13 PhD-students of the Laboratory of Organic chemistry, our professor Ernst Sudhölter and associate professor Han Zuilhof. During these two weeks, we visited a lot of universities and companies in the Bay Area, and at the moment, 6 PhD-students are still in California, exploring other places in the state and enjoying the nice sunny weather for another week.

Some contacts from the staff of our lab were extended or

renewed for our trip, and also a lot of new scientific contacts were made. This resulted in a program in which visits to two of the top five universities of the world, Stanford University and the University of California at Berkeley, were included. At Stanford, we visited professor Bent and professor Chidsey, who are working on surface chemistry, like many PhD-students from our lab do. At Berkeley, we visited, amongst others, assistant professor Francis, age 33, who has already the supervision over 18 (!) PhD-students. At Berkeley, after our scientific visit, Professor Fréchet invited us to his home for a wine-tasting dinner together with his (big!) research group, which was a very nice opportunity to chat with our American colleagues.



Furthermore, we visited several research groups at UC Santa Cruz and UC Davis. We also went to two companies in Silicon Valley: Symyx, a company specialized in

high-throughput experimentation to obtain high value materials, and Vitex; a company specialized in flexible display technology.

During all scientific visits, presentations both from PhD-students from our lab and from the groups we were visiting were scheduled. Sometimes, a lab tour was also included, and especially the labs at Symyx were really impressive. The main research topics that were discussed during our PhD-trip were active surfaces, nanotechnology, and lab-on-a-chip approaches. Each scientific visit, we started with a short presentation about The Netherlands and our lab, so by now all groups we talked to know that half of The Netherlands is located below sea level and that The Netherlands is twice the size of New Jersey. During lunches with the American colleagues, it was always nice to compare the university systems from the US and The Netherlands, and the question: 'what do you think about your state governor?' gave

always rise to some amusing and funny discussions.

But there was not only time for science: during the weekends and in the evenings we enjoyed San Francisco and the sun, and explored the San Francisco Bay Area in our three minivans (with DVD player on board). For most PhD-students it was the first visit to the United States. The first Sunday, we made a walk through the city. During the second weekend, we made a scenery drive along the Pacific Ocean, enjoyed Stinson Beach, biked the Golden Gate Bridge, and visited the Golden Gate Park.

The PhD-trip was a great experience for all of us, and a very good opportunity to get to know each other much better. From both from a scientifically and social point of view, we can look back on a very successful PhD study tour.



New PhD Projects

Arjen Gerssen, 1 January 2005

The analysis of marine lipophilic biotoxins
WU-Toxicology
Supervisors: Prof. J de Boer, Drs. H van Rhijn

Anneke van Hees, 1 January 2005

LIPGENE: Interaction of nutrients and genotype in the metabolic syndrome
UM-Human Biology
Supervisors: Prof. WHM Saris Dr. EE Blaak

Asmin Islam, 1 January 2005

Contamination pathways of Shiga toxin producing *Escherichia coli* in Bangladesh
WU-Food Microbiology
Supervisors: Prof. MH Zwietering, Dr. RR Beumer, Dr. AH Heuvelink, Ir. E de Boer, Dr. KA Talukder

Linda Kjellberg, 1 January 2005

Gene expression in liver depending on different fatty acids, involvement of nuclear receptors and co-factors.
WU-Human Nutrition
Supervisors: Prof. M Müller, Dr. S Kersten

Jose-Miguel Oliveira, 1 January 2005

Functional genomics analysis of the secretion pathway in *Aspergillus niger*.
WU-Genomics
Supervisors: Prof. JA van den Berg, Dr. L Qin

Petra Roubos-van den Hil, 1 January 2005

Structure and biofunctionality of high-molecular-weight soybean fractions produced by fungal fermentation in soybean tempeh: effects on some pathogenicity factors of diarrhoea-associated bacteria.
WU-Food Microbiology
Supervisors: Prof. MH Zwietering, Prof. H Gruppen, Dr. MJR Nout, Dr. RR Beumer

Steven Vanhoutvin, 1 January 2005

Micro-arrays to study intestinal health (WCFS C-012.108)
UM-Internal Medicine
Supervisors: Dr. FTroost

Selva Wijering, 1 January 2005

A toxicogenomics approach of in vitro assessment sensitizing activity of low molecular weight compounds following topical application of chemicals.
UM-Health Risk Analysis and Toxicology
Supervisors: Prof. H van Loveren, Dr. WH de Jong, Dr. JH Arts

Ondine Nieuwerth-van de Rest, 15 January 2005

Cognitive decline and early signs of depression in elderly people: the efficacy of n-3 fatty acid supplementation.
WU-Human Nutrition
Supervisors: Prof. FJ Kok, Prof. WA van Staveren, Dr. CPGM de Groot, Dr. JM Geleijnse

Marieke Koopmans, 1 February 2005

Oceanbiotechlab: Development of sponge cultures.
WU-Process Engineering
Supervisors: Prof. J Tramper, Dr. R Wijffels

Ronald Maas, 1 February 2005

Bioethanol-Lactic acid
WU-Process Engineering
Supervisors: Prof. G. Eggink

Geertje Thuijls, 1 February 2005

Leaky gut, intestinal ischemia
UM-Surgery
Supervisors: Prof. WA Buurman & Prof. E Heineman

Maggy de Vaan, 1 February 2005

ATP during radiotherapy
UM-Epidemiology
Supervisors: Dr. P Dagnelie

Jan-Willem Zijffers, 1 February 2005

The green solar collector.
WU-Process Engineering
Supervisors: Prof. J Tramper, Prof. RH Wijffels

Koen van Dijk, 7 February 2005

Microdroplets
WU-Process Engineering
Supervisors: Prof. RM Boom, Dr. CGPH Schroën, Dr. RGM van der Sman

Nicholas Evennett, 9 February 2005

Leaky gut
UM-Surgery
Supervisors: Prof. WA Buurman, Prof. E Heineman

Petia Kovatcheva, 28 February 2005

Microbe-mediated gut metabolism
WU-Microbiology
Supervisors: Prof. WM de Vos, Dr. H Smidt, Dr. M Eger

Marleen Ampting, 1 March 2005

Dietary modulation and gut infection and associated mucosal inflammation
UM-Internal Medicine/NIZO Food Research
Supervisor: Prof. RJ Brummer, Dr. IMJ Bovée-Oudenhoven, Dr. R van der Meer

Maaïke Berbée, 1 March 2005

L-arginine-suppletion and the TAAA procedure
UM-Surgery
Supervisors: Dr. NEP Deutz

Bas Hanssen, 1 March 2005

L-argininesuppletie and the TAAA-procedures
UM-Surgery
Supervisors: Prof. WA Buurman

Janneke Hogervorst, 1 March 2005

Acrylamide and human cancer risk: Epi-based risk assessment
UM-Epidemiology
Supervisors: Prof. PA van den Brandt, Dr. LJ Schouten, Dr. E Konings

Maartje Steegmans, 14 Maart 2005

Production of uniform droplets
WU-Process Engineering
Supervisors: Prof. RM Boom, Dr. CGPH Schroën

Saskia van Cruchten, 15 March 2005

Elucidation of the mechanism by which minor food components affect risk markers using a genomics approach.
WU-Human Nutrition
Supervisors: Prof. MB Katan, Dr. MV Boekschoten, Dr. GJEJ Hooiveld

Edwin Habeych Narvaez, 15 maart 2005

Carbohydrate-based microstructured materials: application as barrier and release materials.
WU-Process Engineering
Supervisors: Prof. RM Boom, Dr. AJ van der Goot

Floor Kooy, 15 maart 2005

Controlled (bio) synthesis of glycosaminoglycan copolymers.
WU-Process Engineering
Supervisors: Prof. G Eggink, Prof. J Tramper, Dr. R Beefink, Dr. C Boeriu

Marjoleine Verkerk, 15 maart 2005

Consumer-oriented food innovations based on insect-cell biomass: a general approach.
WU-Process Engineering
Supervisors: Prof. J Tramper, Prof. JCM van Trijp, Dr. DE Martens, Dr. IA van der Lans

Bart Venne, 1 April 2005

Healthy snacks.
WU-Biophysics
Supervisors: Prof. H van Amerongen, Dr. H van As

New Postdoc Projects

S.S.M Nys, 16 January 2005

Non-antibiotic versus antibiotic prophylaxis
UM-Medical Microbiology

H. Vermeer, 1 February 2005

Bioinformatica, toxicogenomics
UM-Health Risk Analysis and Toxicology

News from the PhD Councils

VLAG PhD PARTY 2005.

We like to present the annual VLAG PhD PARTY, a great opportunity to have a drink and a chat with your VLAG colleagues working in Wageningen and Maastricht (NUTRIM).

The Party will take place the 17th of June 2005 at SSR, Gen. Foulkesweg 30, Wageningen. Dinner will be served at 19:00 (mensa SSR). After this we will continue in the bar for some drinks and dancing. There will be live music.

Please subscribe before the 29th of May. Let us know whether you will attend the dinner and/or the party. You can send an e-mail to eline.klaassens@wur.nl.

VLAG PhD Council

The next meeting of the PhD Council will be held at Thursday June 2 at 16:00 at the canteen of the Biotechnion building, Wageningen. If you think that your research group is under-represented and you are interested in joining the PhD Council you can contact the VLAG office or Jeroen Knol (jeroen.knol@wur.nl)

Wageningen PhD Council (WPC)

The Association of Collaborative Dutch Universities (VSNU) has come to a principle agreement with the unions on the collective agreement for Dutch universities (CAO). In this principle agreement the appointment policy for PhD students has been formulated rigidly, as it is, leaving no room for contract extensions in case of maternity/parenthood leave or sickness.

"At the beginning of the PhD programme a research assistant (AIO) can be appointed only once for a period of maximal one year to assess his/her adequacy." At the end of this period the PhD student can only be appointed for a temporary position for the length of a PhD programme (i.e. an additional 3 years). Contract extension is not possible. Only exception to this rule can be made if the PhD student has carried out managerial duties (acknowledged by the Executive Board)

WPC wonders what the consequences of this principle agreement are for present and future PhD students and for Wageningen University: more graduation delays? Less PhD students are given a 'green light' after one year? We hope that unions and universities become aware of potential problems related to the existing formulation in this principle agreement.



We like to present:



The Annual VLAG PARTY, 17th of June 2005!

Eating, drinking & dancing at SSR!!

Please subscribe before the 29th of May.
Let us know whether you will attend the dinner and/or
the party. You can send an e-mail to
eline.klaassens@wur.nl

Hope to CU all,

The VLAG PhD Party organizers,
Eline Klaassens & Maaïke Schutte



OVERVIEW OF THE 2004/2005 COURSES

VLAG courses 2005-2006

www.wau.nl/vlag/eduvlco.html
www.nutrim.unimaas.nl

2005

Courses

17-20 May

3-10 June

27 June-1 July

22 August- 2 September

3-5 October

3-7 October

17-19 October

31 October-18 November

7-10 November

21-23 November

14th VLAG PhD-week

Nutritional and lifestyle epidemiology

Analysis of micro array data, Maastricht (NuGO)

European Summer School 'Food & Health', Paris, France

VLAG/NZO Masterclass 'Nutrition Communication; challenges and opportunities'

Functional genomics of industrial micro-organisms (with Kluyver Centre)

Food Perception

Production and use of food composition data in nutrition

15th VLAG PhD-week (optional)

5th Masterclass Nutrigenomics

Conferences/symposia

2-3 June

WEON Conference (Working group Epidemiology)

Other activities

17-28 October

PhD-tour Human Nutrition to UK and Ireland

2006

Courses

10-13 April

18-19 May

19-21 June

June

Regulation of food intake

6th Masterclass Nutrigenomics (Maastricht)

Macromolecules

9th Summer course 'Glycosciences'

Conferences/symposia

24-26 September

Biocatalysis in the Food and Drinks Industries

All courses will be held in Wageningen unless indicated otherwise.



1st NuGO introduction course 2005 17 – 23 April 2005, Marseille, France

The Graduate School



From 17-23 April 2005 the 1st NuGO Introduction course was held in Marseille, France.

23 Students participated in this course, 5 of them are VLAG-PhD students namely: Marjolein Bragt and Stan Gaj both from the University of Maastricht and Linda Kjellberg, Mark Bouwens and Geert Heidema all from Wageningen University.



Group picture: Marseille



Team Building exercise, Marjolein is using own hand made 'bridge' to get across the trench, Geert keeps an eye on it.



Michael Müller, Fré Pepping (course director) and Sander Kersten. Michael and Sander were lecturing on day 2.

Food Microbiology Study Trip

South Africa, March 2005



Last March 14 PhD fellows and Professor Marcel Zwietering of the Laboratory of Food Microbiology (see photo 1) visited Stellenbosch and Pretoria in South Africa during their biannual study trip. The 10 day program was well organized and very diverse. "All three climates were good: the social, scientific and weather climate," as stated by Marcel. On the first day a guided tour was organized around the Cape of Good Hope, taking photos of baboons, penguins and seals. We also saw different townships, which were established due to "apartheid". In these townships, often located near highways, black and colored people lived, while white people mainly populated the cities. This

disparity in living conditions shocked our group.

We visited several companies which check or study the (microbiological) quality of food products: PPECB (Perishable Products Export Control Board), which inspect the texture and colour of exported fruits, SABS (South African Bureau of Standards), which examine among other things bacterial growth in canned fish, CSIR Bio/Chemtek which study packed food products which are spoiled by molds, and the Animal Nutrition & Animal Products Institute of the Agricultural Research Council, which check the quality of milk and meat. We also visited the South African winery "The

Bergkelder" for wine tasting, a pet food factory of Nestlé and a fruit-packaging factory of Colors. To us, these visits were a good learning experience of how scientific knowledge is implemented in companies. On the other hand, all companies were very pleased with our visit and often the presentations of our PhD fellows resulted in nice discussions about their subjects. Furthermore, we had the opportunity to meet and have dinner with 40 members of SAAFoST (the South African Association for Food Science and Technology). Our group gave presentations, which led to discussions during the dinner.

Apart from the company visits and the SAAFoST meeting, we

also visited the departments of microbiology at the University of Stellenbosch and the University of Pretoria. The research of the microbiology group in Stellenbosch was on broader research topics than food alone, like on microbiology and HIV/AIDS, which is a major problem in South Africa. At the University of Pretoria we organized a one-day symposium where several MSc and PhD students from Pretoria and Wageningen presented their work. This symposium attracted many different researchers. The research of the students in Pretoria was focused on food fermentation and pre- and probiotics. Interestingly, one student from Pretoria studied low bacterial diets for cancer patients. This international exchange in research topics led to interesting discussions.

zebras, elephants, a hippopotamus, a crocodile, giraffes, elands, waterbucks, impalas, springboks, warthogs, brown hyenas and wild dogs. From our wonderful trip to South Africa, we have concluded that: only a few people work in large buildings where guns are not allowed, the only vegetarian in our group got ill whereas the carnivores did not, probably due to loads of antibiotics in the large portions of meat; and we gained a lot of knowledge about the research and the culture of South Africa including the local Windhoek-ies (beer) and springbokkies and pancakes (shooters).

For more information and photos, check www.foodmicrobiology.wur.nl.

Armand Hermans

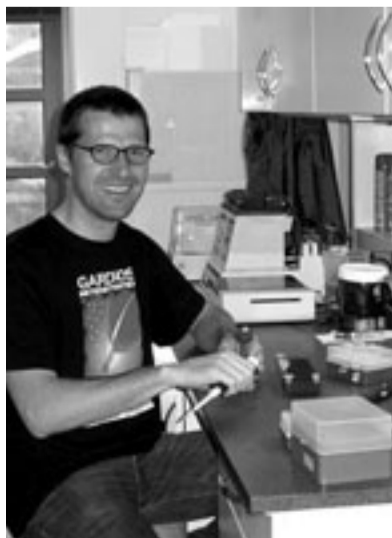
Our last weekend we spent in a safari park called Pilanesberg. Each day at 5:00 AM and at 6:00 PM, we went game driving. We spotted rhinos (see photo 2),



AWARDS

2 VENI grants by the Netherlands Organisation for Scientific Research (NWO) for 2 former VLAG PhD-students.

Dr. Thijs Kaper has been awarded a VENI grant for the development of novel enzyme activities by combining computational design and laboratory evolution.



January 1st 2006 his project will start in the group of Prof. John van der Oost (Microbiology, WU). Laboratory evolution is a powerful strategy for the optimization of enzymes, but requires enzyme traits for which can be screened and selected, like catalysis of a desired reaction. If this is not the case the odds are very slim that a successful enzyme variant will be found, due to the sheer unlimited number of theoretically possible variants. This project aims at the engineering of initial activities on novel reactions in thermostable aldolases by redesign of active sites using 3D enzyme structures and recently developed computational algorithms, and their subsequent optimization by laboratory evolution. The computational design will be performed in the lab of Prof. Wolf Frommer (Carnegie Institution of Washington Stanford, CA, USA), where the first half of the project will take

place. The combination of computational and experimental approaches is likely to result in a streamlined strategy for the optimization of enzymes, which will be a significant contribution to the field of enzyme engineering. The VENI grants are part of the Innovational Research Incentives Scheme (Vernieuwingsimpuls), which has been set up in 2000 by NWO, KNAW and the universities jointly, to promote innovation in the academic research field. The VENI scheme gives young, talented, creative researchers the opportunity to conduct innovative research and to develop ideas by granting up to 200,000 Euro.

Also **Dr. Ramon Langen** from UM-Pulmonology has been awarded a VENI grant. Skeletal muscle atrophy is a prominent and disabling feature of chronic diseases, and an independent predictor of mortality. Systemic



inflammation is a common denominator in these conditions. The transcription factor Nuclear factor kappa B (NF-κB) is activated in response to inflammatory proteins in many cell types, including skeletal muscle cells. Muscle atrophy results from an imbalance between muscle protein synthesis and breakdown.

Increased protein degradation through the ubiquitin (Ub)-proteasome pathway (UPP) contributes to muscle atrophy in various conditions, but the involvement of the UPP in inflammation-induced muscle atrophy remains to be determined. In this proposal the hypothesis that NF-κB activation in skeletal muscle cells is required for inflammation-induced muscle atrophy will be investigated. A combination of genetic and biochemical approaches in established cell and mouse models of inflammation-induced muscle atrophy will be used to address the hypothesis. Knowledge of the molecular pathways responsible for inflammation-induced muscle atrophy can provide new therapeutic strategies to improve disability and mortality in chronic disorders.



Name Julia Volman
Place & date of birth Zevenaar (The Netherlands), 06/11/1980
Research title Intestine oriented immune-modulating effects of dietary b-glucans; characterization and functional applications in counteracting Th2-oriented pathologies or lowering infection-related morbidity
Group/Department Department of Human Biology, NUTRIM-Maastricht University
(Co)Promoter Prof. W.A. Buurman, Prof. R.P. Mensink, Dr. J. Plat
Start of PhD project 15 September 2004

After graduating from secondary school I intended to study medicine. However, I was not awarded a place for study at university. Since I was also interested in technology, I went to Eindhoven to study Biomedical Technology. Nevertheless, this was not what I was looking for, so I quit and hoped the lottery would turn out better for me. Again I failed to win a place in medical school, and this time I chose Health Sciences at Maastricht University. Fortunately this was exactly covering my

interests and after one year I specialized in Biological Health Sciences. During my internship I evaluated the effects of β -glucan, which is a dietary fibre, on the immune system in intestinal cell lines. Briefly, the experiments showed immune stimulating effects of β -glucan in intestinal cells. When I started my internship I thought about becoming a PhD student after graduating, and this idea did not change when I was finished. Because of the good results of

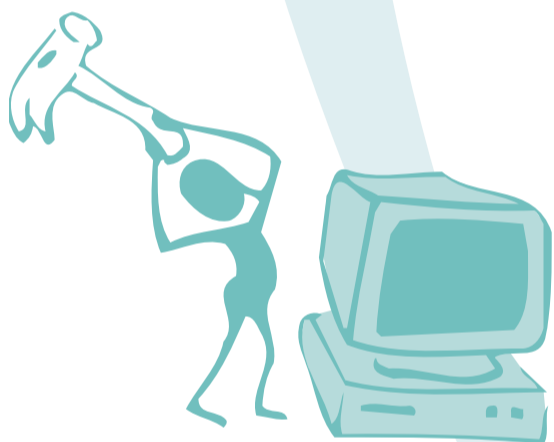
the study during my internship, my supervisor wrote a research proposal to get financial support, which was accepted. Therefore I started with my PhD project in September 2004. During the project I will be focusing on the functionality and mechanism behind the immune stimulating effects of β -glucan that we have found. In addition, effects of different sources of dietary β -glucan (such as from fungi, barley and oat) on immune function will be investigated. In my PhD, I hope to contribute to



the knowledge of β -glucans, so they may be used to optimise defence systems against invading pathogens in elderly and others with a weakened immune system. β -Glucans could also be profitable to lighten immunoprophylaxis against (food) allergy. It is now six months since I have started my PhD and what I mostly like is the diversity of work. Besides my research I visited congresses, joined courses and taught students.



Another thing I really appreciate is the freedom to work out your own plans. The following years I hope to achieve good results so I can publish a lot, and have a



Name Jorg Brunner
Place & date of birth Oosterhout (The Netherlands), 21/02/1978
Research Analysis of the protein secretion pathway in the filamentous fungus *Aspergillus niger*
Group/Department Fungal Genomics (WU) Laboratory of Microbiology (WU)
(Co)promoters Prof. J.A. van den Berg, Dr. L.Qin
Start of PhD project November 2003

I just calculated back the months/years that I've already been working on my PhD project now. I'm glad that I can still say: "less than 1.5 years!", but it seems so much shorter... I would have liked to start with some shocking results and rock-solid conclusions I obtained in the last few months, but I did not obtain them yet. You will hear about that, when I write the "Out"-piece in VLAG-Flash in a few years. I've been spending a lot of time on a side-project that I started at the beginning of my PhD period and I'm still spending time on it now. I think, one of the advantages of being a PhD student is that you have quite some freedom to make your own choices. This especially accounts

for projects, like mine, that have not been well defined. This also makes freedom a disadvantage, however, as choices are sometimes hard to make. Wrong or late choices may lead to a lot of time-loss. Till now, I was not very fortunate during my project. Besides the research that was not going very well, my daily supervisor left our group at the beginning of this year. This caused some disbelief, because I did not think of this scenario when I started here in Wageningen. A couple of months I was extremely demotivated, but when I met my new supervisor (about whom I was very sceptic at first), I felt new energy coming up and now I'm back in business again. I'll now be trying to finish the

side-project (a light switchable promoter system for *A. niger*) and in parallel I will work on the core of the research, namely finding the bottlenecks of heterologous protein secretion in *A. niger* by using microarrays & good-old genetics. My supervisor and I will have to be careful to keep me focused on the core of the project and, above that, to make sure that I will start with the things that have to be done. During the last year and a half I experienced that I have difficulties in starting-up experiments for which I need the help of others. Well, trouble enough, but still: nice colleagues, exploring the unknown, fresh data, fancy research.....**science is fun!!**



Name Sandra Hinz
Place and date of birth Weert (The Netherlands), 28/03/1977
Title of thesis Galactosyl hydrolases from *Bifidobacterium adolescentis* and *Bifidobacterium longum*,
Group/Department Laboratory of Food Chemistry, Wageningen University
(Co)Promotor Prof. A.G.J. Voragen, Dr. J.-P. Vincken
Date & place of defence 17th of May at Wageningen University

Description of the project: The human intestine contains many bacteria, like bifidobacteria, which can have a positive effect on human health. Prebiotics can stimulate the amount of gut bacteria. The bacteria are able to grow on prebiotics because they contain enzymes to degrade the prebiotics. Knowledge about the enzymes present in bifidobacteria, will help to determine which kind of prebiotics are suitable to stimulate the gut bacteria. In this research, enzymes present in bifidobacteria, which were able to degrade galactan and galactooligosaccharides, were investigated. Three different enzymes were examined, e.i. β -galactosidase, endogalactanase, and α -galactosidase. The results of this thesis gave more insight in how galactan and galacto-

oligosaccharides can be degraded by the bifidobacteria. **Added value of PhD-degree:** I started as a PhD because I liked doing research. After 4 years, I still like to do research. Especially performing the experiments in the lab. At this moment I don't know what the value of having a PhD degree will be, since I just finished this project. I learned a lot in the past 4 years and that will be valuable anyway. So far, doing a PhD study was worth it for me. **Starting a PhD project again:** A disadvantage of the project proposals is that the subject is very broad. At the start of your thesis it is really hard to find out what you really will do during this period. For me it really helped to write down what the

subjects of each chapter in my thesis would be. I did this after approximately 2 $\frac{1}{2}$ years, and after that everything was much clearer for me and I could better focus on the work to be done. I think it will be useful for every PhD student to do this in an early stage of the project. **Future plans:** Since February of this year I started as a Post-doc at the Laboratory of Food Chemistry. The subject I work on deals with vegetable trimmings from the vegetable processing industry. These trimmings are used as animal feed, but they still contain many valuable ingredients, which can be used in the food industry. In this project we will look which ingredients can be easily extracted from the trimmings and can be used in the food industry.



What PhD's always wanted to know ...

Dear PhD student,

Have you ever had a question that you did not dare to ask? Do you think that you know something deep inside that everybody should know?

This is your opportunity!

Send us your questions, remarks and opinions (ingeborg.vanleeuwen-bol@wur.nl), and we will get back to you on that.

Dissertations

28 January at Maastricht University
Bart Vries: 'Complement activation and apoptosis in renal ischemia-reperfusion injury'.

(Co)promoters: Prof. W.A. Buurman, Dr. L.W.E. van Heurn

4 February 2005 at Wageningen University
Ruud Jalving: 'Proteolytic processing in the secretory pathway of *Aspergillus niger*'.

(Co)promoters: Prof. A. van Ooijen, Dr. P.J. Schaap

4 February 2005 at Maastricht University
Chris Hukshorn: 'The psychological role of leptin in man'.

(Co)promoters: Prof. W.H.M. Saris, Dr. M. Westerterp-Plantenga

25 February 2005 at Maastricht University
Rik Bogers: 'Fruit and vegetable consumption; measurement, determinants and intervention effects'.

(Co)promoters: Prof. P. van den Brandt, Prof. K. Westerterp, Dr. P. Dagnelie, Dr. P. van Assema

4 March 2005 at Wageningen University
Peter Immerzeel: 'Characterization of carrot arabinogalactan proteins'.

(Co)promoters: Prof. A.G.J. Voragen, Prof. S.C. de Vries, Dr. H.A. Schols

29 March 2005 at Wageningen University
R. te Biesebeke: 'Molecular analysis and improvement of protein production by *Aspergillus oryzae* grown on solid substrates'.

(Co)promoters: Prof. W.M. de Vos, Prof. C.A.M.J.J. van den Hondel, Dr. P.J. Punt

5 April 2005 at Wageningen University
Drupadi Dillon: 'Nutritional health of Indonesian adolescent girls: the role of riboflavin and vitamin A on iron status'.

(Co)promoters: Prof. J.G.A.J. Hautvast, Prof. C.E. West (+), Dr. H. Verhoef

12 April 2005 at Wageningen University
Ben van den Broek: 'Glycosyl hydrolases from *Bifidobacterium adolescentis* DSM20083. Their role in the metabolism and synthesis of oligosaccharides'.

(Co)promoters: Prof. A.G.J. Voragen

18 April 2005 at Wageningen University
Yovita Rahardjo: 'Fungal mats in solid-state fermentation'.

(Co)promoters: Prof. J. Tramper, Dr. A. Rinzema

20 April 2005 at Wageningen University
René Verhoef: 'Structural characterisation and enzymatic degradation of exopolysaccharides involved in paper mill slime deposition'.

(Co)promoters: Prof. A.G.J. Voragen, Dr. H.A. Schols

22 April 2005 at Wageningen University
Maike Hofman: 'Genetic variation in bile acid metabolism: Implications for lipoprotein homeostasis'.

(Co)promoters: Prof. F.J. Kok, Prof. E.G. Schouten, Dr. H.M.G. Princen

28 April at Maastricht University
Monica Zehnder: 'Substrate metabolism in skeletal muscle measured by magnetic resonance spectroscopy'.

(Co)promoters: Prof. W.H.M. Saris, Prof. U. Boutellier (Zürich)

3 May 2005 at Wageningen University
Mark van der Veen: 'Towards intensification of starch processing'.

(Co)promoters: Prof. R.M. Boom, Dr. A.J. van der Goot

17 May 2005 at Wageningen University
Sandra Hinz: 'Galactosyl hydrolases from *Bifidobacterium adolescentis* and *Bifidobacterium longum*'.

(Co)promoters: Prof. A.G.J. Voragen, Dr. J-P. Vincken

23 May 2005 at Wageningen University
Willem van Schaik: 'The alternative sigma factor sigmaB and the stress response of *Bacillus cereus*'.

(Co)promoters: Prof. M.H. Zwietering, Prof. W.M. de Vos, Prof. T. Abee

30 May 2005 at Wageningen University
Marielle Moonen: 'Novel oxygenases acting on phenolic compounds'.

(Co)promoters: Prof. I.M.C.M. Rietjens, Prof. S.C. de Vries, Dr. W.J.H. van Berkel

Colophon

VLAG-FLASH is the newsletter of the PhD-students of the Graduate School VLAG (Advanced Studies in Food Technology, Agrobiotechnology, Nutrition and Health Sciences). VLAG-FLASH is published three times a year. In every newsletter attention will be paid to ongoing research, general information concerning training- and research activities of VLAG, the agenda of relevant courses, congresses etc.

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Interview with a former PhD student

Name
Title thesis
Group

Eva Kovacs
Satiety and body weight regulation
Department of Human Biology,
Maastricht University

(Co)promoters

Dr. M. Westerterp-Plantenga,
Prof. W. Saris

Date & place thesis defence:
Current working institute:

October 4, 2002 in Maastricht
Unilever R&D Vlaardingen

1. What was the topic of your PhD research?

The research described in my thesis focussed on the development of strategies for weight management. The aim was to identify (combination of) ingredients that decrease energy intake, particularly by stimulating satiety in the post-ingestive and post-absorptive phase, increase energy expenditure, and/or reduce fat storage in the body. We concluded that a treatment with ingredients that affect energy intake, expenditure or storage can be helpful but is unlikely to provide a 'magic bullet' for obesity treatment. Diet and lifestyle changes are likely to remain the cornerstone of obesity treatment for the foreseeable future. However, supplementation of ingredients that affect appetite, energy intake, expenditure or storage may be useful in sustaining body weight loss and preventing body weight (re)gain, especially as adjuncts to behavioural and lifestyle changes.

2. Can you describe the most important experiences you had during that period?

Throughout the all PhD period I could experience important moments, sometimes great and sometimes tough moments. But I think that the thesis defence was the most important and for sure exciting experience. I also remember with pleasure the participation at various



congresses and courses in different cities in Europe and the US, which gave me the opportunity to broaden my scientific knowledge, but also to meet new people and see new places.

3. What is your current job like? Is it in the same field as your PhD research?

I am currently working as a research scientist at the Unilever Health Institute, Unilever R&D in Vlaardingen in the area of weight management. Although I did like to work in the academic world, I already knew before I started my PhD that I eventually would find a job in a more industrial setting (I have a background as a Food Technologist). So, during the last year of my PhD, I looked for a position as a scientist within a food company, where science was more directly linked to

products and benefits for the consumers.

4. How are you combining your career and your private life?

Combining career and private life is ok, although not always easy. I actually have more time for my private life than when I was doing my PhD. Although the workload of my current job is quite high, I make more regular working hours now. During my PhD, working in the evenings or during weekends was not an exception when performing human clinical trials. This is not the case now, with some few exceptions, e.g. working dinners or travelling.

My career switch however required some sacrifices from my partner's site. He had namely to move from Maastricht to Vlaardingen, which was not an easy choice.

5. What are your plans for the future? How do you see yourself 5 or 10 years from now?

I am very happy with my current job, so I intend to grow in my actual position as a research scientist in the weight management area, while increasing the interaction with the business environment. At the same time I hope to build further my scientific expertise and external reputation in this area, e.g. through regular participation at conferences and publications in scientific journals. Considering my background as a Food Technologist, I do not exclude that I will make a turn to a more technical environment sometime in the future.

6. Do you have an advice for current PhD students?

Do not only focus on your PhD project, but be open minded. Share and discuss ideas/plans

with others (both within and outside your group) and make use of others opinions and suggestions. These can strongly improve the quality of your work. Make use of all the opportunities you get for networking (e.g. at conferences). This may not only be important for your project, but may also very useful for finding a job after finishing your PhD.

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