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## News from the secretariat of the Graduate School VLAG

### How to obtain your VLAG Education Certificate?

After almost 10 years of experience with the graduate school, we arrived at the situation that > 60% of the Wageningen based PhD students obtain the VLAG Education Certificate as a proof that they have earned at least 21 credit points for all their educational activities. For the Maastricht based PhD students this proportion is still considerably lower. During the VLAG External Review in April the evaluation committee stressed the importance of the education

programme. It is in their view a good possibility to build up your professional competence and it can be used as a starting point for 'long life learning'. What should you do to obtain your VLAG Education certificate? Send an e-mail to Mrs. Yvonne Smolders (yvonne.smolders@wur.nl) at least a month before your graduation day. She will send you a specific format to be used to present the respective educational activities in a logic way. The VLAG Secretariat will make

sure that during the graduation ceremony your promotor mentions that you have fulfilled the criteria of the graduate school and he will pass on to you the letter with the overview of the credit points. For those PhD students who are in a special position (external candidates, sandwich PhD-students and/or mature entries for example) the scientific director has the authority to award a waiver so that the VLAG Education Certificate can be awarded for those who have < 21 credit points.

That's all.

**Fré Pepping**

## EDITORIAL

Dear readers,

Welcome back to a new academic year. We hope that everyone has enjoyed the long, hot summer days.... And that everyone has recharged the batteries for the rest of 2003.

In this 8th issue of the VLAG-FLASH we present our regular columns: In & Out, New PhD projects, Dissertations, Overview of the Courses and News from the PhD Councils. In addition, Fré Pepping sheds some light on VLAG's credit-point system and the way to obtain VLAG's certificate along with the PhD title.

Furthermore, accounts of the 13th International Biochemistry of Exercise Conference, the 4th International Symposium on Industrial Proteins, and the SSIB Satellite 2003 are presented.

In the PhD Councils column you will find especially interesting news, namely how the salary rise for PhD students in the Netherlands will be implemented. For more information regarding this topic please consult LAIOO's website ([pubwww.tudelft.nl/laioo](http://pubwww.tudelft.nl/laioo)).

The VLAG-FLASH is looking for a new member for the editorial board. If you enjoy sharing interesting issues with your fellow PhD colleagues and you think you would like to join our team, please do not hesitate to contact us!

For general questions, comments, or suggestions regarding VLAG or this newsletter you can always write us at the addresses provided below.

Wishing you all the best,

The Editorial Board

You can reach the editorial board of the VLAG-FLASH by e-mail at [ingeborg.vanleeuwen-bol@wur.nl](mailto:ingeborg.vanleeuwen-bol@wur.nl) or [eira.carballo@wur.nl](mailto:eira.carballo@wur.nl)

## 13th International Biochemistry of Exercise Conference (IBEC), Maastricht

### IBEC 2003

From July 13 to 16, the 13th International Biochemistry of Exercise Conference (IBEC) was held in Maastricht. The meeting was organized by the International Research Group on the Biochemistry of Exercise (IRGBE), the Nutrition and Toxicology Research Institute Maastricht (NUTRIM) and the Nutrition Society (UK).

The conference started on Sunday, the same day that the stage in the Tour de France went to Alpe d'Huez. Many of the cycling loving attendants might have felt a certain disappointment that a conference on the biochemistry of exercise had to start exactly on this day but this did not affect the interest in the opening lecture, in which Frank Booth gave an integrative view on the biochemical basis of the health effects of exercise.

On Monday morning the conference continued with a plenary lecture by Shelley des Etages about the proper way to analyse changes in gene expression measured by microarray. The plenary lecture was followed by two symposia hosted by several international speakers. The first symposium dealt with exercise signalling pathways controlling fuel oxidation during and after exercise while the second symposium was about the fatty acid transporters of skeletal muscle. After the lectures the attendants had the opportunity to view several posters covering a wide variety of topics. In the evening the traditional IBEC soccer tournament was held and although the temperature was approximately 30°C the enthusiasm to play was enormous. Finally, the Anglo-American team beat the Copenhagen Muscle Research Centre in a thrilling final (see photo).

On the second full day of the IBEC 2003, the plenary lecture was given by Bente Pedersen who talked about the metabolic role of interleukine-6 produced by muscle during exercise. Again the plenary lecture was followed by two symposia; the first one dealt with mechanisms involved in exercise-induced mitochondrial biogenesis in skeletal muscle while the second covered new methodologies and insights in the regulation of fat metabolism during exercise. After a second round of poster viewing, a dinner party was organised at Fort Sint Pieter. This marvellous location (with a panoramic view over Maastricht) in combination with superb weather made the party a great success.

Because of the great success of the dinner party, some attendants may have missed (or were very sleepy during) the panel discussion about the use of transgenic animal models in studies of exercise, chaired by David Hood. Also on the last day of the conference, this plenary session was followed by two symposia

with several speakers. The first symposium focussed on muscle hypertrophy while the second symposium was about a less exercise-related but very important topic: the adipose tissue-liver interaction leading to insulin resistance. In between the two symposia, Henrik Galbo was awarded with the IRGBE Honour Award 2003 for outstanding scientific work in the field of exercise research. Morten Donsmark was awarded with the IRGBE Young Investigator Award for his research concerning the role of skeletal muscle hormone-



sensitive lipase (HSL) and its regulation in rats.

All in all, the IBEC 2003 was a very interesting and valuable conference giving a nice overview of the current state of affairs in the field of exercise research. The several social events, either active or passive, created the opportunity to meet other PhD students and colleagues from around the world. I want to make my compliments to the local organizing committee in Maastricht for doing a great job. And, for those interested, the next International Biochemistry of Exercise Conference will be held in Seoul (South Korea) in October 2006.

**Joris Hoeks**  
UM-Human Biology

## SSIB Satellite Congress 2003, Maastricht

From July 12-15, 2003 the SSIB Satellite Congress 2003 (Society for the Study of Ingestive Behaviour) was held in Maastricht. This was a prelude to the 11th SSIB Congress to be held in Groningen a few days later. On Saturday evening the congress was opened by a welcome get-together at the "Kruithuis". On Sunday morning the lectures started early (for some people too early after a nice Saturday evening). This morning was focused, in 3 different sessions, on "palatability, peripheral and central signaling and dietary restraint".

After lunch it was time for some exercise. For those who felt like hiking there was a hike to the St. Pietersberg. The first day ended with a good dinner and two dinner speeches: "The significance of animals for humans". On Monday morning the last 3 sessions were on the programme: "macronutrients, energy density en heritability of body-mass regulation". In the afternoon and evening everybody was free to visit the town, do some shopping and/or have a drink at one of the terraces of Maastricht.

On Tuesday morning the bus left around 9 o'clock to Groningen for the 11th SSIB Congress starting that evening with a welcome get-together. Half-way in our trip to Groningen there was a stop at the Kröller-Müller museum at the National Park De Hoge Veluwe. Here we got the change to visit the exhibition on Vincent and Helen. In this manner a scientifically and socially interesting SSIB Satellite Congress ended.

**Neeltje Vogel**  
UM-Human Biology

## New PhD Projects

### Tim Baks, 01-04-2003

Ezymatic conversions in highly concentrated reaction systems. (WU-Process Engineering. Supervisors: Prof. R. Boom, Dr. E. Janssen)

### Wu Ming, 07-04-2003

Oesophageal cancer: Etiological heterogeneity in low and high risk areas of Jiangsu Province, China. (WU-Human Nutrition. Supervisors: Prof. P. van 't Veer, Dr. Button)

### Wendy Rodenburg, 01-05-2003

Nutrigenomics of the mucosal barrier against pathogens. (WU-Human Nutrition/RIKILT/NIZO/WCFS. Supervisors: Prof. M. Katan, Dr. J. Keijer, Dr. R. van der Meer)

### Aernout Martens, 15-05-2003

Self-assembling, monodisperse polymers forming ultrastrong fibers and materials for medical and technical purposes (WU-Physical Chemistry & Colloid Sciences. Supervisor: Prof. M. Cohen Stuart)

### Kristel Diepvens, 01-06-03

Thermogenesis during treatment of overweight humans. (UM-Human Biology. Supervisor: Dr. M. Westerterp-Plantenga)

### Pauline Andang'o, 01-07-2003

Efficacy of iron fortified whole maize flour on iron status of school-aged children in Kenya: a double-blind randomised controlled trial. (WU-Human Nutrition/Unilever/KMRI & Maseno University-Kenia. Supervisors: Prof. C. West, Dr. H. Verhoef, Dr. S. Osendarp, Dr. R. Ayah, Dr. R. Mwaniki)

### Johan Jocken, 01-07-03

Identification of mechanism responsible for the impaired catecholamine-induced lipolysis. (UM-Human Biology. Supervisor: Dr. E. Blaak)

### Yuen-Yee Lee, 01-07-2003

In vitro and in vivo interplay between human gronone reductase and (health-promoting) flavonoids. (WU-Biochemistry/Toxicology. Supervisors: Prof. I. Rietjens, Dr. W. van Berkel, Dr. J. Aarts)

### Cheryl Roumen, 01-07-03

Long term effect of changes in lifestyle on glucose tolerance and adherence to the intervention programme in subjects with impaired glucose tolerance. (UM-Human Biology. Supervisors: Prof. W. Saris, Prof. T de Bruin, Dr. E. Blaak)

### Martinette Streppel, 01-07-2003

Concordance with dutch healthy eating guidelines in relation to coronary heart disease and overall mortality. A longitudinal study. (WU-Human Nutrition/RIVM. Supervisors: Prof. F. Kok, Prof. D. Kromhout, Dr. M. Ocké, Dr. H. Boshuizen)

### Arno wegkamp 01-07-2003

Engineering of microbial functionality. (WU-Microbiology. Supervisors: Prof. W. de Vos, Dr. E. Smid)

### Abdullah Firmansah, 09-07-2003

Effect of zinc and fat intake on absorption and conversion of ingested  $\beta$ -carotene to vitamin A in lactating Indonesian women. (WU-Human Nutrition/IAEA. Supervisors: Prof. C. West, Prof. Muhilal)

### Suzanne van Loo, 15-07-2003

Nitrogen heterocycles from aldehydes via biocatalytic cascades. (WU-Microbiology. Supervisors: Prof. W. de Vos, Dr. J. van der Oost)

### Joline Beulens, 01-08-2003

New research methods for the detection of early biomarkers. (WU-Human Nutrition/TNO. Supervisors: Prof. F. Kok, Prof. G.J. Schaafsma, Dr. H. Hendriks)

### Eva Castro Prada, 01-08-2003

Crispy/crunchy behaviour of cellular solids. (ATO/WCFS. Supervisors: Prof. R. Hamer, Dr. T. van Vliet)

### D. van der Veen, 01-08-2003

DATEM (WU-Fungal Genomics. Supervisors: Prof. W. de Vos)

### Randall Arce Alvarado, 01-09-2003

Consumer-oriented tool for the identification of technological applications. (WU-PDQ. Supervisors: Dr. A. Linnemann, Prof. M. van Boekel)

### Liesbeth Geraets, 01-09-2003

Identification and evaluation of poly(ADP-ribose)polymerase-1 inhibitors in foods. (UM-Pharmacology & Toxicology. Supervisors: Prof. A. Bast, Dr. G. Hageman)

### Jendo Visser, 01-09-2003

Crispy/crunchy behavior of cellular solid foods. (ATO/WCFS. Supervisor: Prof. R. Hamer, Dr. T. van Vliet)

## New Postdoc Projects

### Freddy Troost, 01-05-2003

Validation of a non-invasive method to determine colonic permeability. UM-Human Biology/WCFS

### Annemarie Sleijffers, 01-05-2003

Toxicological evaluation of the immune function of pesticide workers, a European assessment / Immunological health and adaptation following chronic exposure to environmental ultraviolet radiation. UM-Health Risk Analysis and Toxicology

### Christine Olthoff-Felix, 01-05-2003

Potential of adenosine 5'triphosphate (ATP) in the treatment of chronic fatigue syndrome: a pilot study. UM-Epidemiology

### Bianca Panis, 01-05-2003

Therapeutical trial to improve the bone mineral density of pediatric patients with Galactosemia. UM-Paediatrics

### Alida Melse, 01-06-2003

Validation and application of a stable isotope method to study folate bioavailability in humans in vivo; BIOFAST. WU-Human Nutrition/WCFS

### Albert de Graaf, 01-09-2003

Research on proteomics UM-General Surgery

## Fourth International Symposium on Industrial Proteins

ENTER

IOP



Photo 1

The fourth international symposium on industrial proteins took place in the Reehorst, in Ede, on May 15 and 16, 2003. This symposium was organised by the Programme Committee of the IOP-IE (Innovatiegerichte OnderzoeksProgramma's- Industriële Eiwitten). Scientists presented their work on industrial proteins in a lecture, and the current IOP projects and additional projects were also presented in a poster form. The programme was divided in four sections. The first session was on globular proteins, the second was more specific to gluten proteins. In the third session the topic of the lectures was collagen and gelatin, and in the fourth one casein. These plenary sessions covered the main four classes of proteins applied in the industry. Furthermore, two 3D movies, one on b-lactoglobulin and the other one on collagen, were played and commented by scientists. These movies were realised by

the University of Groningen and are available on the web (<http://hpcv100.rc.rug.nl/beb-bkv.html>). The closing session included lectures on future needs and developments.

All the lecturers received a nice painting as a present and also the book "Industrial Proteins in Perspective", volume 23 of Progress in Biotechnology (Aalbersberg et al., Editors).

A total of 33 posters was displayed during the entire duration of the conference and the best posters were presented with an award rewarded the last day.

1st : Fanny Weinbreck, NIZO Food Research  
2nd: Marloes Schurink, ATO  
3rd: André de Roos, DSM-Delft  
4th: Karensa Boersen, WU-Food Sciences/WCFS  
5th: Inta Scherze, FSU-Jena, Germany  
6th: André Brodkorb, Teagasc-Moorepark, Ireland

On Thursday evening, the conference dinner was held in the castle Hoekelum in Bennekom (see photo 1). The

Photo 2



audience was entertained by a group of 4 women who performed songs and some acting. André Brodkorb, one of the participants, turned out to be a performer as well (see photo 2)

This international conference allowed scientists from various countries to gather and discuss the topic of industrial proteins. Researchers from universities and research institutes could meet scientists from the industry

and exchange ideas and knowledge, which confirmed that this conference was a success. Fundamental research and applied research were bridged.

Fanny Weinbreck  
NIZO Food Research

## News from the PhD Councils

### AIO salaries will rise to the level of Junior researchers

AIO

The universities and labour unions have agreed on a new labour agreement. One of the major issues of the agreement and an obstacle during the negotiations was the position of PhD students in the new system of job assessment. The unions and universities have now agreed to include PhD students in the new system. This effectively means that the salaries of PhD students will rise over the coming years up to scale 10, comparable to the salary of an assistant professor. The cut due to education received by PhD students will be done away with, except for the first year.

The first raise will take effect September this year. The next two years the salaries will be raised stepwise until in 2005 scale 10 is reached. The table shows the stepwise rise of the gross salary for the years of the position:

year	1/9 2003	1/9 2004	1/9 2005
1	1668	1777	1831
2	1777	1831	2136
3	1933	2136	2238
4	2238	2238	2347

More information can be found on the web page of LAIOO: [pubwww.tudelft.nl/laioo](http://pubwww.tudelft.nl/laioo)



**Name** Julita Manski  
**Place & date of birth** Kartuzy (Poland), 15/6/1979  
**Research title** Structure formation in protein-fat-water systems by shear  
**Group/Department** Food and Bioprocess Engineering Group, WUR  
**Promotors** Prof. R.M. Boom, Dr. A.J. van der Goot  
**Start of PhD project** February 2002



After graduating from Wageningen University with a degree in Food Science and Technology, I had some ideas about my immediate future. Finding a job in the food industry seemed obvious, but also research had my interest. I had enjoyed doing research during my thesis at the Process Engineering Group, and during my internships. Before graduating, I was seriously considering a Ph.D. in the U.S.A. However, after my second internship in the U.S.A., I decided that I would rather work in the

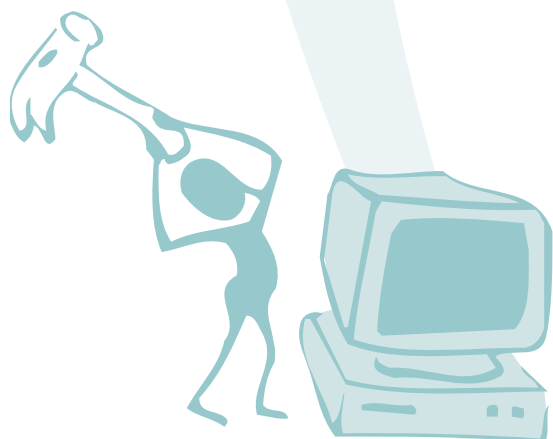
Netherlands, as I preferred to live close to my family and friends. Then, I heard about a project that was going to be initiated at the Process Engineering Group. At first, I was told general information about the project. The elements of an applied Ph.D. project in relation with food, and in cooperation with an external partner immediately drew my attention. After several meetings with my supervisor and professor, I finalized my decision. My motivation was based on the people that I was to work with, the contents of the project, and

the industrial applicability. Since I started in February 2003, I have not only been enjoying the project a lot, but also the company of my colleagues and the social gatherings at our group. In my opinion it is a real challenge to do research for a relatively long period of time. Probably there will be some ups and downs, but that again is a challenge. In addition, the various instructive activities that are part of a Ph.D. appeal very much to me. The objective of my project is to control and understand the structure and

formation of soft solid products by applying shear forces. We work with various pieces of equipment to study the effects of shear on structure formation of biopolymers that are often used in industry. Defining and developing proper analysis techniques for structure evaluation is one of our current priorities. In conclusion, I expect to learn a lot while working on this project. When taking the past half year into account, I hope the rest of my Ph.D. and my time at the Process Engineering Group will be as much fun!



**Name** Djin Gie Liem  
**Place & date of birth** Amersfoort (the Netherlands), 08/12/1974  
**Research title** Sweet and sour taste development in young children  
**Promotors:** Prof. Dr. F.J. Kok (Wageningen University)  
**Co-promotor** Dr. C. de Graaf (Wageningen University), Dr. J.A. Mennella (Monell Chemical Senses Center)  
**Group/Department** Human Nutrition (Wageningen University), Monell Chemical Senses Center (US)



**Start of PhD project** October 2000  
 It has now been about three years ago that I walked into Dr Kees de Graaf's room and asked him if he had anything going on with respect to taste development in children. Unfortunately he did not have any. However, during my msc-thesis, which was on taste development in children, I noticed that a group, called the Monell Chemical Senses Center in Philadelphia (US) did, and was still doing great research in this area. I managed to establish a collaboration between Monell and Wageningen University. In the period 2000-2002, I conducted studies at Monell. Last year I returned to Wageningen and continued my research on taste development in children. So

far we discovered that children's preferences for sweet taste was heightened, when parents applied many rules that aimed to restrict children's sugar consumption. Furthermore, a 8-day-exposure to sweet beverages can heighten sweet preferences of children. However, such exposure to sour beverages appeared to have no effect on sour preferences. We also discovered that a substantial part (33%) of the young children we tested, had a preference for extreme sour stimuli. In my last year I will try to find out why some children have this preference. From the moment I walked into Dr de Graaf's room up to now, my PhD-project has inspired me. During my Monell years I had the chance to work with the best

researchers in the field. The past three years have been the most exciting ones in my life. Being a PhD-student gives you the opportunity to explore a field of research you are interested in, and above all, it gives you the opportunity to explore yourself. I worked and lived in the States for two years. I learned to cope with the advantages and disadvantages of such life. The coming final year will be hectic. Starting a new study, writing the introduction and discussion, and looking for a new job. In the end I hope to understand a little bit better why children eat the things they do.



**Name** Yvonne Dommels  
**Place & date of Birth** Geldrop (The Netherlands), 18/06/1975  
**Research title** Effects of n-6 and n-3 polyunsaturated fatty acids on colorectal carcinogenesis  
**Group** Toxicology, ATV, WUR  
**Co-promotor** Prof. P.J. van Bladeren, Dr. G.M. Alink, Dr. B. van Ommen  
**Date of defence** 12/09/2003, Wageningen University



During my masters (Biological Health Sciences, Maastricht), I became interested in research on the interaction between nutrition and carcinogenesis. That's why I started in November 1998 as a PhD student in the WUR/TNO Centre for Food Toxicology. During the first 4 months I got the opportunity to write my own project proposal, regarding the cellular, biochemical and molecular mechanisms of the beneficial effects of n-3 polyunsaturated fatty acids (PUFAs) on colorectal carcinogenesis. My research revealed that high fat fish oil diets (HFFO) diets with a high amount of n-3 PUFAs, such as eicosapentaenoic acid (EPA, 20:5n-3) can inhibit the formation of pre-neoplastic lesions in the rat colon compared with high fat corn oil (HFCO) diets with a high

amount of n-6 PUFAs such as linoleic acid (LA, 18:2n-6). EPA also inhibits the growth of human adenocarcinoma Caco-2 cells compared to LA. The colon cancer cell growth inhibiting effects of n-3 PUFAs seems to be related to increased oxidative stress, because levels of lipid peroxidation as well as transcription of genes involved in oxidative stress are increased in HFFO fed rats. Furthermore, addition of antioxidants diminishes the anticancer effects of n-3 PUFAs in Caco-2 cells.

I really enjoyed being a Phd student. It gave me the opportunity to improve and extend my laboratory, presentation and writing skills, but also to improve my knowledge of toxicology and cancer research by attending

seminars, courses and symposia. So, if I could go back in time I would start my PhD again, despite the frustrations about for example failed experiments!! But if I could start again with the knowledge I have now, I would immediately start with experiments on oxidative stress and not on other topics such as PGE2 synthesis or gap junctional intercellular communication, which I now know are less or not important for the anticarcinogenic effects of n-3 PUFAs. But I definitely don't think of doing a PhD again, I am very happy that I almost finished it and I look really forward to start my new job at RIKILT Institute of Food Safety in the research unit 'Effects of Food Bioactives'.



### 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

The following VLAG PhD-fellows successfully defended their thesis

4 June 2003 at Wageningen University  
**Anneke Gijbbersen-Abrahamse: 'Membrane emulsification: process principles'.**  
*Supervisors: Prof. R. Boom, Dr. A. van der Padt*

10 June 2003 at Wageningen University  
**Arno Alting: 'Cold gelation of globular proteins'.**  
*Supervisors: Prof. C. de Kruijff, Prof. R. Hamer and Dr. R. Visschers*

13 June 2003 at Wageningen University  
**Sara da Fonseca Selgas Martins: 'Unravelling the Maillard reaction network by multiresponse kinetic modelling'.**  
*Supervisors: Prof. W. Jongen, Prof. M van Boekel*

18 June 2003 at the Universiteit Maastricht  
**Gertjan den Hartog: 'Superoxide dismutase as toxicity modulator'.**  
*Supervisors: Prof. A. Bast, Prof. W. van der Vijgh (VUA), Dr. G. Haenen*

23 June 2003 at Wageningen University  
**Marieke Bruins: 'Oligosaccharide production with thermophilic enzymes'.**  
*Supervisors: Prof. R. Boom, Dr. A. Janssen*

25 June 2003 at the Universiteit Maastricht  
**Rachel van Haften: 'Effect of vitamine E on glutathione-dependent enzymes'.**  
*Supervisors: Prof. A. Bast, Dr. C. Evelo, Dr. G. Haenen*

25 June 2003 at Wageningen University  
**Maarten Schutyser: 'Mixed solid-state fermentation. Numerical modeling and experimental validation'.**  
*Supervisors: Prof. R. Boom, Dr. A Rinzema*

27 June 2003 at the Universiteit Maastricht  
**C. Langenberg: 'Myocardial metabolism in the coronary artery bypass graft patient'.**  
*Supervisors: Prof. P. Soeters, Prof. Durieux, Prof. A. Wagenmakers*

27 June 2003 at the Universiteit Maastricht  
**H. Pietersen 'Myocardial metabolism in the coronary artery bypass graft patient'.**  
*Supervisors: Prof. P. Soeters, Prof. Durieux, Prof. A. Wagenmakers*

30 June 2003 at Wageningen University  
**Mingwei Wang: 'Effect of pentosans on gluten formation and properties'.**  
*Supervisors: Prof. R. Hamer, Dr. T. van Vliet*

3 July at the Universiteit Maastricht  
**Marije Hoos: 'Metabolic effects of growth hormone'.**  
*Supervisors: Prof. R. Donckerwolcke, Prof. K. Westerterp, dr. W. Gerver*

4 July at the Universiteit Maastricht  
**Marleen Kamphuis: 'The sense of dietary fat: food intake and body weight regulation'.**  
*Supervisors: Prof. W. Saris, Dr. M. Westerterp-Plantenga*

3 September at Wageningen University  
**Alida Melse-Boonstra: 'Dietary folate: bioavailability studies in humans'.**  
*Supervisors: Prof. F. Kok, Prof. C. West, Dr. P. Verhoef*

12 September at Wageningen University  
**Maria Gante de Vasconcelos Barbosa: 'Microalgal photobioreactors: Scale-up and optimisation'.**  
*Supervisors: Prof. J. Tramper, Dr. R. Wijffels*

12 September at Wageningen University  
**Yvonne Dommels: 'Effects of n-6 and n-3 polyunsaturated fatty acids on colorectal carcinogenesis'.**  
*Supervisors: Prof. P. van Bladeren, Dr. G. Alink, Dr. B. van Ommen*

15 September at Wageningen University  
**Harsi Kusumaningrum: 'Behaviour and cross-contamination of pathogenic bacteria in household kitchens - relevance to exposure assessment'.**  
*Supervisors: Prof. F. Rombouts, Dr. R. Beumer*

17 September at Wageningen University  
**Mohammad Amin Hejazi: 'Milking of microalgae: production and selective extraction of  $\beta$ -carotene in two-phase bioreactors'.**  
*Supervisors: Prof. J. Tramper, Dr. R. Wijffels*

26 September at Universiteit Maastricht  
**Marco Mensink: 'Diabetes: A way of life. Life style changes, glucose tolerance and fatty acid metabolism'.**  
*Supervisors: Prof. W. Saris, Prof. T. de Bruin, Dr. E. Blaak, Dr. E. Feskens*

## 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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## OVERVIEW OF THE 2003/2004 COURSES

### VLAG courses 2003-2004-2005

[www.wau.nl/vlag/eduvlco.html](http://www.wau.nl/vlag/eduvlco.html)  
[www.nutrim.unimaas.nl](http://www.nutrim.unimaas.nl)

#### 2003

##### Courses

29 September-2 October  
 6-7 October  
 6-24 October  
 13-16 October  
 3-7 November  
 23-29 November  
 25 November

10 December

##### Other activities

8-9 November

##### Thematic meetings

11 September  
 15 September  
 22 October

#### 2004

15-19 March  
 17-25 March  
 27-28 April  
 10-14 May  
 11-14 May  
 17-19 May  
 28 June-1 July  
 22-25 November

#### 2005

13-19 March  
 2-3 June

VLAG PhD week  
 Masterclass Nutrigenomics  
 Production and use of food composition data in nutrition  
 Food perception and food preference  
 Industrial Proteins  
 EU-course Chemistry and biochemistry of antioxidants  
 Type II diabetes mellitus: causes, effects and treatment (Maastricht, Dutch-language)  
 Changes in body composition: consequences of diet, exercise and medication (Maastricht, Dutch-language)

2nd International Nutrigenomics Conference (TNO)

Microtechnology in food engineering  
 36th thematic meeting: Microalgal Biotechnology  
 5th CHN-thematic meeting

Management of food safety  
 ENLP (Luxemburg)  
 Masterclass Nutrition in elderly  
 A Unified Approach to Mass Transfer  
 Masterclass Proteomics (Maastricht)  
 Profetas Conference  
 Glycosciences Summercourse  
 Genetics and physiology of food-associated micro-organisms

Chemistry and Biochemistry of Antioxidants (FEBS)  
 WEON Conference

Courses will be held in Wageningen unless indicated.

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