

Dissertations

The following VLAG-PhD candidates successfully defended their thesis

– 11 January 2001 at Catholic University Nijmegen

Mrs. E. Karyadi: 'A study of the effects of micronutrient supplementation and M. vaccae vaccination on immune status and clinical response to treatment during pulmonary tuberculosis chemotherapy among Indonesian adults'.
Supervisors: Prof.dr. J.W.M van der Meer, Prof.dr. C.E. West

– 17 January 2001 at Wageningen University

Mrs. Ir. R.M. Weggemans: 'Genetic disposition and response of blood lipids to diet. Studies on gene-diet interaction in humans'.
Supervisors: Prof.dr. M.B. Katan, Dr.ir. P.L. Zock

– 12 March 2001 at Wageningen University

Mrs. Ragaa El Hadi Omer: 'Peanut butter consumption and hepatocellular carcinoma in Sudan. A case-control study'.
Supervisors: Prof.dr.ir. F.J. Kok and Dr.ir. P. van 't Veer

– 13 March 2001 at Wageningen University

Mrs. Ir. I.E. Pol: 'Improved applicability of nisin in novel combinations with other food preservation factors'.
Supervisors: Prof.dr.ir. F.M. Rombouts and Dr. E.J. Smid

– 28 March 2001 at Wageningen University

L.G. Chitarrà: 'Fluorescence techniques to detect and to assess viability of plant pathogenic bacteria'.
Supervisors: Prof.dr.ir. F.M. Rombouts, Dr.ir. R.W. van den Dulk and Dr. T. Abee

– 3 April 2001 at Wageningen University

Ir. C. van der Sluis: 'Production of Japanese Soy-Sauce Flavours'.
Supervisors: Prof.dr.ir. J. Tramper, dr.ir. R.H. Wijffels

– 6 April 2001 at Wageningen University

Ir. R.H.H. van den Heuvel: 'Exploring the limits of vanillyl-alcohol oxidase'.
Supervisors: Prof.dr. N.C.M. Laane, Dr. W.J.H. van Berkel

– 6 April 2001 at Maastricht University

Mrs.drs. A.H.C. Goris: 'Validation of the assessment of food intake in humans'.
Supervisor: Prof.dr. K.R. Westerterp

– 20 April 2001 at Maastricht University

Drs. L.J.C. van Loon: 'The effects of exercise and nutrition on muscle fuel selection'.
Supervisors: Prof.dr.ir. W.H.M. Saris, Dr. A.J.M. Wagenmakers

– 27 April 2001 at Wageningen University

Mrs.Ir. I.C.W.Arts: "Dietary catechins and their potentially protective role in cardiovascular diseases and cancer".
Supervisors: Prof.dr.ir. D. Kromhout, Dr. E.J.M. Feskens, Dr.ir. P.C.H. Hollman

– 11 May 2001 at Maastricht University

Drs. M.A.R.C. Daemen: Apoptosis and inflammation in experimental ischemia reperfusion. Matters of life and cell death'.
Supervisors: Prof. W.A. Buurman, Prof. G. Kootstra

– 16 May 2001 at Wageningen University

Ir. R.A.M. Dossa: 'Appetite of Beninese pre-school children'.
Supervisors: Prof. J.G.A.J. Hautvast, Dr. E.A.D. Ategbo, Dr.ir. J.M.A. van Raaij

2001 SPRING COLLOQUIA, LABORATORY OF MICROBIOLOGY

Genetic, biochemical & physiological adaptation in Micro-organisms

May 3 Biological Hydrogen Production
Ed van Niel, Laboratory of Microbiology, Wageningen University

Friday May 11 Microbial activities involved in iron cycling in anoxic environments 10.30 hr
Bernhard Schink, University of Konstanz, Germany

May 17 Biochemical mechanism of interspecies electron transfer
Frank de Bok, Laboratory of Microbiology, Wageningen University

May 31 Genome and Transcriptome Analysis in Bacteria
Oscar Kuipers, Molecular Genetics, University of Groningen

June 7 New Insights into Archaeal Sugar Metabolism
Corné Verhees, Laboratory of Microbiology, Wageningen University

June 21 Some like it hot!
Bettina Siebers, University of Essen, Germany

location: **Lecture Hall (C34)** Laboratory of Microbiology, Hesselink van Suchtelenweg 4, time: **Thursday 16.00-17.00**, after the seminar: drinks in the canteen

OVERVIEW OF THE 2001 COURSES

VLAG COURSES
<http://www.wau.nl/vlag>

11-16 June	Nutritional and lifestyle epidemiology
6-7 September	Masterclass Nutrigenomics
1-19 October	Production and use of food composition data in nutrition
17-19 October	Protein Engineering
22-25 October	VLAG AIO-week
7-9 November	Food enzymology
11-17 November	Chemistry & biochemistry of antioxidants
21-23 November	Agrification/sec.plant metabolites
17-20 December	Reaction kinetics in food science

NUTRIM COURSES
<http://www-nutrim.unimaas.nl/>

8 June	Veranderingen in lichaamssamenstelling: effecten van voeding, training en medicatie
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OSPT COURSES
<http://ospt.ct.utwente.nl/>

14-18 May	Polymer Reaction Engineering
11-13 June	Polymerization Technology
18-22 June	Advanced molecular separation
25-29 June	A unified approach to mass transfer
12-18 October	Distillation, absorption and extraction
13-17 November	Computational fluid dynamics for chemical engineers
10-14 December	Thermodynamics for the processindustry

Colophon

VLAG-FLASH is the newsletter

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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<http://www.wau.nl/vlag>

Publisher & Printing:

Copy Master Nederland b.v.

Eikenburglaan 11b

5248 BJ Rosmalen.



VLAG FLASH

May 2001

Volume 1

Number 1

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VLAG AIO-Party June 22nd

**A key to understanding
Scientific Literature**

**What PhD's always wanted to
know...**

Colophon

A Newsletter to strengthen the VLAG feeling!

The first issue of the VLAG Newsletter is in your hands and it is to be expected that many will follow. The purpose of this news bulletin is to provide the current 250 PhD students and 40 postdocs within our graduate school with information about research progress, courses, social activities, personal events etc.

In my new position as scientific director of VLAG, I learned at the first meeting with the VLAG PhD council in December 2000, that PhDs in general are missing a real VLAG feeling. Of course, you may argue 'a VLAG feeling... why? I feel fine! ...let me concentrate on my PhD research... I'm not interested!' However, the PhD council ensured me that only a minority would have this attitude and many would appreciate a better social and scientific network among PhD's. The PhD council decided to have the e-mail addresses updated, to organise a yearly VLAG party, and to publish the VLAG newsletter. As can be read in this issue's editorial, the council invites PhD's, postdocs, and supervisors to contribute intensively to the newsletter. I strongly feel that this type of communication and networking will help in achieving the overall VLAG objectives and it is from this perspective that I warmly support the call of the editorial council and I hope to count on you.

Some of you may wonder what exactly the VLAG objectives are. The graduate school VLAG wants to be a **center of excellence for high quality postgraduate education and interdisciplinary research** covering the **total food chain**.

The research program distinguishes five themes:

1. Metabolic Aspects of Nutrition,
2. Nutrition, Lifestyle & Health,
3. Food Safety,
4. Product Technology,
5. Agrobiotechnology & Process Technology.

In the education program a large number of advanced courses and master classes are offered for PhD students which are the basis for the VLAG certificate issued at the PhD graduation ceremony. VLAG has a management team consisting of Professor(s) Emiel Wouters (University Maastricht), Yvonne Rietjens, Remco Boom and Dr Harry Gruppen. Furthermore, the school is guided by an Executive Board and a Board of Trustees.

In the coming issues of the Newsletter I will bring under your attention typically PhD related issues, such as the unemployment benefit for PhD's, consequences for PhD's of the publication of the Royal Netherlands Academy of Arts and Sciences' (KNAW) report 'Rising

and therefore they are unmotivated to go on;

- The supervisors are not happy with the quality of their work or with the progress already made;
- They have difficulties expressing their ideas and feelings to their supervisors, or they do not seem to be able to reach a consensus with them on how the research should proceed;
- They have problems regarding the establishment of the authorship of their scientific publications;

and so on." "I can not promise to offer an immediate solution to all existing problems", said Prof. Rombouts, "but you can always count on me to listen and to be discrete. We will try together to find a constructive way to overcome the difficulties and if necessary we will involve other people who can work with us in solving your problem. In any case, you will not be left alone to deal with your difficulties"



Stars' (Rijzende Sterren), etc. Finally for now, I like to draw your special attention to an announcement in this Newsletter about the newly established confidant Professor Frans Rombouts, who can be contacted as a confidential adviser by VLAG PhD's.

I wish the Editorial Board of the VLAG Newsletter all the success and I'm confident that their initiative will help to further optimize the VLAG feeling and consequently the VLAG goals.

Professor Frans J Kok
Scientific Director

Prof. Rombouts is available in his VLAG-confidant functions by appointment only. You can make an appointment via the Food Hygiene and Microbiology secretariat. (0317-482887) between 9.00 h and 14.30h every weekday). You don't have to mention in advance the topic of your conversation.

IT IS PARTY TIME AT VLAG...and you are invited!!!

Finally, a party for the VLAG PhDs! A unique chance to meet all your (250!) colleagues in a festive atmosphere. The party will take place on the evening of June 22nd in Wageningen. As in any good party, there will be plenty of food, drinks and good music to go around (even a live band!), all expenses covered by VLAG. So keep Friday 22nd June free! We will inform you further of the details.

Marieke Bruins
(VLAG PhD Council)

Newsletter of the Graduate School

VLAG (Advanced studies in food technology, agrobiotechnology, nutrition and health sciences)

EDITORIAL

Dear readers:

We are proud to present to you the first issue of the 'VLAG-FLASH'. In this editorial we want to start by answering some of the questions that may have crossed your mind when you saw this newsletter in your post box. First we want to answer the question: Is it necessary to have a VLAG-newsletter? Our answer to this question is YES! It certainly is. We have noticed that the knowledge of VLAG PhD graduates about their own research school is very poor, and that most PhD fellows have no idea of what is the added value of being part of VLAG. We think that these are the most important reasons why most VLAG PhD-fellows do not feel committed to their school. It is therefore the aim of this newsletter to improve the 'Vlag feeling'. Moreover, the report 'De rijzende sterren', (from the Dutch Royal Academy of Sciences) about the future of Research Schools in the Netherlands, also stresses the need for schools to have an excellent internal and external communication. We feel that this newspaper can partly accomplish this goal.

A second question can be: 'What can I expect to find in this newsletter?'. Well, here you will find, for instance, news from VLAG, new courses, news from the VLAG-PhD-council, as well as other councils, like the ARO-council. Next to this kind of information, we also want this newspaper to be funny and interesting to read. Therefore, you can also find here news from other PhD students, comics related to the "hard-life of a PhD", etc. But above all we would like this to become also your newspaper, your voice as a PhD fellow. We want it to be a two-way communication path. We want you to be heard! Therefore you will find here sections in which we specifically ask for your reaction or your impute, but apart from that, we expect your enthusiastic cooperation with news, comments, reactions, questions... All of which will be most welcomed and of all of which we will try to give an answer (you can easily reach us by email at Vlag-flash@list.nutepi.wau.nl). Finally you are also probably thinking: Why the "Vlag-Flash?" The name 'VLAG-FLASH' came up during the first PhD-council meeting in which we discussed the newsletter. If we remember well it was Frans Kok (=director of VLAG) who came up with this. We think it sounds nice, but if think this is a terrible name and you have a better option here is a challenge: let us know. If you come up with a fantastic name, we will reward you with a homemade apple pie. Finally, we would like to wish you a pleasant reading and we hope that you enjoy reading the newsletter as much as we have enjoyed making it!

The editorial board



New PhD projects

– **W.T.E. Bosker, 01-01-2001**
Brushes as antifouling surfaces (OIO-project, Physical Chemistry and Colloid Sciences-WU. Supervisors: Prof. M.A. Cohen Stuart, Dr. W. Norde)

– **Mrs. Ngo Thi Phuong Dung, 01-01-2001**
Improvement of production of Brown Sticky Rice Wine (AIO-project, Food Hygiene & Food Microbiology-WU. Supervisors: Prof.dr.ir. F.M. Rombouts, Dr.ir. M.J.R. Nout)

– **Ing. L. Wijnands, 01-01-2001**
Bacillus cereus (Food Hygiene & Food Microbiology-WU/RIVM. Supervisors: Prof.dr.ir. F.M. Rombouts, Dr.ir. R.R. Beumer, Dr.ir. T. Abee)

– **Nguyen Van Thanh, 01-01-2001**
Dormancy, viability and vitality of Rhizopus oligosporus sporangiospores (AIO-project, Food Hygiene & Food Microbiology-WU. Supervisors: Prof.dr.ir. F.M. Rombouts, Dr.ir. M.J.R. Nout)

– **Mrs. Ir. S. Eussen, 01-02-2001**
Mild vitamin B12 deficiency and impaired cognitive function in old age: the efficacy of oral vitamin B12 supplementation (AIO-project, Human Nutrition and Epidemiology-WU. Supervisors: Prof.dr. W.A. van Staveren, Dr.ir. C.P.M.G. de Groot)

– **Ing. L. Hornstra, 01-02-2001**
Germination of mesophilic and psychrotrophic foodborne Bacillus cereus (AIO-project, Food Hygiene & Food Microbiology-WU/ATO. Supervisors: Prof.dr.ir. F.M. Rombouts, Prof.dr. W.M. de Vos, Dr. M.H.J. Bennik)

– **R. Minnaard, 01-02-2001**
The relationship between muscle protein degradation, (ultra)structural abnormalities and contractile function in critically ill rats (AIO-project, Movement Sciences-UM. Supervisors: prof. H. Kuipers, dr. M. Hesselink)

– **I. Koleva, 01-02-2001**
Isolation, analysis and evaluation of antioxidative compounds from Bulgarian Sideritis species. (AIO-Project, Organic Chemistry-WU/IOC-BAS. Supervisors: Prof. S. Popov, Prof. Æ. de Groot, Prof. A.G.J. Voragen, Dr. T.A. van Beek, Dr.ir. J.P.H. Linssen)

– **Mrs. Ir. M. Kuiper, 01-02-2001**
Survival and growth of Legionella in biofilms and water (AIO-Project, Food Hygiene & Food Microbiology-WU. Supervisors: Prof.dr.ir. F.M. Rombouts, Dr.ir. R.R. Beumer, Prof.dr.ir. D. van de Kooij)

– **Ir. Y. de Vries, 01-02-2001**
Initial events involved in germination of foodborne Bacillus cereus and inactivation of germinating spores and vegetative cells. (AIO-project, Food Hygiene & Food Microbiology-WU. Supervisors: Prof.dr.ir. F.M. Rombouts, Dr.ir. T. Abee, Prof.dr. W.M. de Vos)

– **S. Brouns, 01-03-2001**
Optimization of catalytic features and production of thermozymes. (AIO-project, Microbiology-WU. Supervisors, Prof.dr. W.M. de Vos, Dr. J. van der Oost)

– **Mrs. Ir. A. Hoek, 01-03-2001**
Consumer and consumption behavior with respect to meat and novel protein foods (OIO-project, Human Nutrition and Epidemiology/PDQ-WU, supervisors: Prof.dr.ir. F.J. Kok, Prof.dr.ir. W. Jongen, Prof.dr.ir. M.A.S. van Boekel, Dr.ir. K. de Graaf)

– **Drs. M. Lenters, 01-03-2001**
Exacerbation in COPD-patients (Plumonology-UM, Supervisors: prof.dr. E. Wouters, M. Drent)

– **Ir. F. Weinbreck, 15-03-2001**
Complex Coacervation (NIZO food research & Physical & Colloid Chemistry-UU, Supervisors: Prof. Dr. C.G. de Kruijff, Dr. P. Schrooyen)

– **Drs. S. Rothkranz, 01-03-2001**
Laboratory parameters in sarcoidosis (Clinical Chemistry-UM, Supervisors: Prof. van Dieijen-Visser, M. Drent)

– **Mrs. Ir. A. Kuijsten, 01-04-2001**
Dietary lignans: intake, bioavailability and molecular mechanisms in relation to malignant diseases and coronary heart disease (OIO-project, Human Nutrition and Epidemiology-WU/RIKILT, supervisors: Prof.dr.ir. F.J. Kok, Dr.ir. P.C.H. Hollman, Dr.ir. P. van 't Veer, Prof.dr.ir. D. Kromhout)

News from the PhD Councils

In this section we will keep you informed of the latest developments related with the PhD Council of VLAG and the PhD Council of the WUR Research Schools. In this first number we will introduce you to the VLAG PhD Council. In the next issue we will tell you about the PhD Council of the WU Research Schools (the "ARO-raad").

All Research Schools in The Netherlands are obliged to have a PhD Council, that is, a consultative organ that represents all PhD fellows inscribed in the Research School (AIO, OIO or self-sponsored) by the school board. Representatives of PhD fellows from all the departments, institutes or groups in the research school should be present in this council. The main aim of the PhD councils is to serve as a permanent, bilateral communication link between the PhD fellows and the board of their Research School.

The VLAG PhD Council currently consists of 9 members, representing different institutions involved in VLAG (see Table). This council has a meeting once in every 1-2 months. From time to time, representatives from the board of VLAG (including the director) also attend these meetings.

The tasks of the VLAG PhD Council are varied, but they mainly focus

on presenting to the board of VLAG the reactions and comments of PhD fellows to changes decided by this board or by other institutions (even the government) that may affect them. Members of this council also take part in the WUR Research Schools' PhD Council (the "ARO-raad"), thereby spreading these reactions and comments beyond the VLAG's sphere of action. A representative of the VLAG PhD Council also attends VLAG's management meetings.

Another major task of the VLAG PhD council is the spreading of information about general changes concerning PhD fellows.

The last meetings of the VLAG PhD Council have covered topics like:

- Definition of tasks and responsibilities within the council;
 - The improving of the image of the VLAG school with its PhD fellows (from which the making of this newsletter and the organisation of the VLAG party are examples);
 - The analysis of a proposal from the Royal Dutch Academy of Sciences regarding the future functioning of Research Schools in The Netherlands.
- The minutes of these meetings are available upon request.

Members of the VLAG PhD Council

Ingeborg Boels
NIZO
Eric de Bruin
ATO-B.V.
Marieke Bruins (chair)
Process Engineering, WU
Ana Costa
Product Design and Quality Management, WU
Yvonne Dommels
Toxicology, WU/ TNO Centre for Food Toxicology
Tiny Hoekstra
Human Nutrition and Epidemiology, WU
Willem van Schaik
Food Hygiene and Microbiology, WU
Ynte de Vries
ATO-B.V.
Wout Wolken
Industrial Microbiology, WU

WU= Wageningen University

Interested to know more about the VLAG PhD Council? Interested to represent your group at the Council's meetings? Contact us at VLAG-FLASH@list.nutepi.wag-ur.nl or Yvonne Smolders (VLAG secretariat: 0317-485108)

– **Mrs. Ir. M. Tijhuis, 01-04-2001**
Biochemoprevention of colorectal neoplasia: interactions between plant foods and polymorphisms in coding as well as regulatory DNA sequences (AIO-project, Human Nutrition and Epidemiology/ Toxicology-WU, supervisors: Prof.dr.ir. F.J. Kok, Prof.dr.ir. P.J. van Bladeren, Prof.dr. I.M. Nagengast, Dr.ir. E. Kampman, Dr.ir. J.M.M.J.G. Aarts)

– **Mrs. Drs. A. Boerboom, 17-04-2001**
Biochemoprevention of colorectal neoplasia: interactions between plant foods and polymorphisms in coding as well as regulatory DNA sequences (AIO-project, Human Nutrition and Epidemiology/ Toxicology-WU, supervisors: Prof.dr.ir. F.J. Kok, Prof.dr.ir. P.J. van Bladeren, Dr.ir. E. Kampman, Dr.ir. J.M.M.J.G. Aarts)

– **Mrs. Eira Carballo Cárdenas, 01-05-2001**
Microalgae: host organisms for natural nutraceuticals. (VLAG AIO-project, Sub-department of Food and Bioprocess Engineering-WU, supervisors: Prof.dr.ir. J. Tramper, Dr.ir. R.H. Wijffels)

– **Drs. M. Thijssen, 01-04-2001**
Effects of stearic acid, oleic acid and linoleic acid on cardiovascular risk markers in healthy men and women, (AIO-project, Human Biology-UM, supervisor: prof. RP Mensink)

– **Drs. A. Joosen, 01-05-2001**
Predisposition of obesity, the role of fat cell differentiation. (AIO-project, Human Biology-UM, supervisors: Prof.dr. K. Westertep, Dr. A. Bakker)

New Postdoc projects

• **Dr. J.C.M. Verhoef, 01-01-2001 till 01-01-2002**
(Human Nutrition and Epidemiology-WU) INREF/VLAG/PE & RC Fellow

• **Mrs. Dr.Ir. I. Arts, 01-03-2001**
(Human Nutrition and Epidemiology-WU/RIKILT, Supervisor, Dr.ir. P.C.H. Hollman)

• **Dr. E. Giltay, 01-04-2001**
(Human Nutrition and Epidemiology-WU, Supervisors: Prof.dr.ir. F.J. Kok, Dr. M. Gelljense)

• **U. Florjancic, 01-03-2001 till 01-09-2001**
(Food Physics-WU, Supervisors, Prof.dr.ir. E. van Linden, Dr. L. Sagis)
VLAG-Marie Curie Fellowship

• **C. Klein, 15-03-2001 till 15-06-2001**
(Food Physics-WU, Supervisors, Prof.dr.ir. E. van Linden, Dr. L. Sagis)
VLAG-Marie Curie Fellowship

– **Mrs. Ir. I. Milder, 01-04-2001**
Dietary lignans: intake, bioavailability and molecular mechanisms in relation to malignant diseases and coronary heart disease (OIO-project, Human Nutrition and Epidemiology-WU/RIKILT, supervisors: Prof.dr.ir. F.J. Kok, Dr.ir. P.C.H. Hollman, Dr.ir. P. van 't Veer, Prof.dr.ir. D. Kromhout, Dr. E. Feskens, Dr. B. Bueno de Mesquita)

In & Out



Name
Simone G.J. van Breda
Place & Date of Birth
Hulsberg (The Netherlands) 02/01/77
Topic of research
Genetic and food toxicology
Institute/Department
Department of Health Risk Analysis and Toxicology, University of Maastricht
Promotor
Prof. J.C.S. Kleinjans
Start of PhD-project
April 2000

In 1995, I started the study of Environmental Health Sciences at the Faculty of Health Sciences at the University of Maastricht. From December 1997 until March 1999 I worked as a student-assistant at the Department of Health Risk Analysis and Toxicology. During this period I and a student colleague investigated the relation between the nitrate-concentration in drinking water and the incidence of diabetes mellitus type I in children 0-14 years of age in The Netherlands. I finished my study with a traineeship at TNO Nutrition and Food Research Institute, division Toxicology, in

Zeist. From March 1999 until November 1999 I examined the effect of ω -3 polyunsaturated fatty acids on the initiation phase of the photocarcinogenic process in λ lacZ-transgenic mice. In January 2000 I rejoined the Department of Health Risk Analysis and Toxicology where I started with the development of a DNA-microarray to detect polymorphisms relevant for cancer induction. After graduation in March 2000, I started in April 2000 with my PhD project entitled 'Identification of mechanisms at the genome level for protection against colon cancer by vegetables'. The central aim

of the PhD project is to identify the mechanisms by which vegetables decrease risks for colon carcinogenesis, by focussing on the molecular effects at the genome level. During my PhD-period I expect to learn as much as possible about planning en doing good research. Next, I would like to contact and meet other researchers and go to congresses and symposia. Furthermore, this year I start with the Postgraduate Education in Toxicology (PET) programme to become registered as a toxicologist.

In...



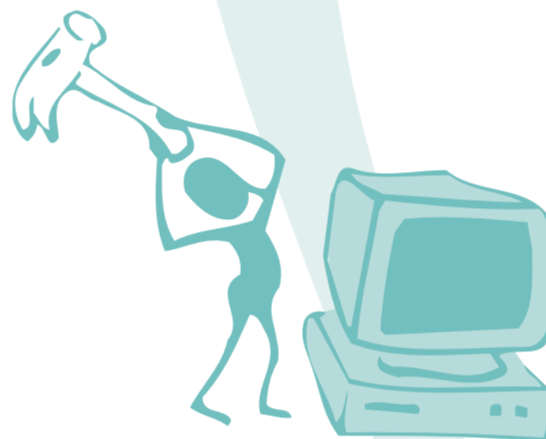
Name
Isabel Aidos
Place & Date of Birth
Portugal, 23/07/72
Topic of research
Upgrading of by-products from herring processing industry: production of fish oil
Institute/Department
Food and Bioprocess Engineering Group Department of Food Technology and Nutritional Sciences – Wageningen University & RIVO-Netherlands Institute for Fisheries Research

Promotor
Prof. R. M. Boom
Start of PhD-project
September 1998

As a Ph.D. student I belong to the Food and Bioprocess Engineering Group at Wageningen University, with work placement at RIVO, Netherlands Institute for Fisheries Research, IJmuiden. The aim of my research is upgrading herring by-products into fish oil. Therefore, the study is focused on the relation between the quality of the starting raw material (herring by-products) to the quality of the final herring oil. In the first stage an inventory study has been made about the amount and type of by-products from the herring processing industry. Subsequent, the methodology and techniques to follow lipid oxidation path as well as the fish oil recovery process were defined and applied.

After a struggling period, during which nothing was working as was supposed to be and I even lost my dairy supervisor, it was possible to continue in the right direction. Now, the recovered herring oil has been characterized, and the relation between freshness, seasonal variation, sorting of by-products and even optimization of the process has been made. The advantage of doing a Ph.D. program located outside of the University is that you are in close contact with several companies and is possible to have a better idea what is the reality of the research world. On the other hand, the major difficulty that you will be facing on is that you will sometimes be isolated and lacking

of interaction since you are there most of the time by your own! Myself, I have an extra difficulty: I am a non-Dutch speaker! Although, all the people over here are very kind and try to make my life easier, (since I used to be the only foreigner at the Institute), there are also difficulties and lonely times. You miss a lot just because you are not able to follow simple and ordinary conversations. Most of the experiments and lab work is finished and my plans for the remaining research period are mainly focused on analyzing the obtained data and continuing working on publications. Let's see if I can finish it on time!



Name
Mohamed Awad
Place & Date of Birth
El-Mansoura (Egypt), 24/01/67
Topic of research
Control of the contents of flavonoids and chlorogenic acid in apples as quality factors for colour and healthiness

Institute/Department
Product Design and Quality Management Group & Plant Physiology Group, Department of Food Technology and Nutritional Sciences – Wageningen University & PPO – Randwijk
Prof. W.M.F. Jongen

Promotor
Date of defense
26-06-2001, Aula of the Wageningen University

The aim of my thesis was to study the possibilities of increasing the level of flavonoids and chlorogenic acid (naturally occurring antioxidants in plants) in apples to improve the fruit's red colour – an important factor for marketing – and the healthiness. Experiments were carried out investigating the factors influencing the concentration and accumulation of these compounds in apples, as well as the factors influencing their preservation during storage and handling. Results show that there is much room for optimising the level of potentially health-promoting phytochemicals in apples, especially in what respects cultivar selection, growing conditions and cultural practices.

During my PhD I have learned a lot. I have obtained the skills necessary to go on working in research, namely the way of thinking, how to define/deal with problems in a team spirit, how to handle long hours of working (and on different things at the same time!) and how to write papers. Obtaining a PhD makes me feel more confident as a researcher, but sometimes I feel like I have just started my real work with science. For instance, if I could go back in time I would try to develop a mechanistic model to predict the level of phytochemicals during the fruit's production chain. The first time I ever spoke with foreign persons was in The Netherlands. Today I strongly

believe that people around the world are indeed not different, they just do things in different ways. In Egypt a doctor's title is highly appreciated and respected. For most people, especially the ones with more economical difficulties, a doctor's degree is something you aspire and look up to. I hope that this good reputation of science and scientists in Egypt makes my job easier when I go back to Mansoura University next July. My plans there are to establish teamwork and laboratories for research in the quality and healthiness of fruits, since this is a topic where much is yet to be investigated.

Out...



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 (VLAG-FLASH@list.nutepi.wau.nl), and we will get back to you on that. All types of questions or opinions are in principle acceptable, but try not to be too technical (if it is about research) or too radical!