

Dr. Machteld van Lieshout
Date of birth: 11 July 1971
Birthplace: Helmond, Netherlands
Nationality: Dutch
Gender: Female
Marital status: Happily married



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Curriculum Vitae

Machteld van Lieshout

Education

- 1997 - 2001 ○ *Wageningen University, Wageningen, Netherlands (WUR)*. PhD in Nutrition, Food Technology and Biotechnology. Specialization: Bioavailability and bioefficacy of β -carotene. Advanced education within the Graduate School Food Technology, Agrobiotechnology, Nutrition and Health Sciences (VLAG).
- 1995 - 1996 ○ *Bureau IELAB of 'Hogeschool' Utrecht, Utrecht, Netherlands*. Period of practical training at 'Proyecto Cuchumatanes' in Guatemala (Central America) within professional exchange program.
- 1989 - 1995 ○ *Wageningen University*. BSc and MSc in Human Nutrition. Specialization: Nutrition and Health.
- 1983 - 1989 ○ *Carolus Borromeuscollege in Helmond, Netherlands*. Secondary High School. Specialization: Dutch, English, French, German, Mathematics A and B, Chemistry and Physics.

Experience

Present position

- Since 07/03 ○ Postdoctoral fellow at *North-West University (NWU)*, Department of Nutrition (South Africa). Development of stable isotope research and education. From July 2003 - July 2004, part-time data-manager for project profiling obese women with insulin resistance syndrome (POWIRS). Position funded by NWU and from January 2005 by the National Research Foundation of South Africa.

Research

- 04/02 - 06/03 ○ Senior scientist. Permanent position within *Proveris Ltd* based at *Rowett Research Institute, Aberdeen, Scotland (UK)*. Validation of a method for measuring inhibition of platelet aggregation using a whole blood aggregometer. Sensory evaluation of an orange juice enriched with plant extracts. Coordination of randomized placebo-controlled trials in healthy volunteers to assess the inhibitory effect of a plant extract on platelet aggregation.

Experience (cont'd)

- 01/97 - 11/01 ○ PhD (Supervisors: Profs CE West, Muhilal and JGAJ Hautvast) at *Department of Human Nutrition* (WUR) with field work at *Nutrition Research and Development Centre, Bogor, Indonesia*. Bioavailability and bioefficacy of β -carotene measured using ^{13}C -labelled β -carotene and retinol: studies in Indonesian children. Two controlled dietary trials in school children using a stable isotope technique developed within this project; writing of four scientific papers; development of an extraction method to liberate retinol and carotenoids from faeces prior to injection into HPLC and LC-MS systems. Project sponsor: Netherlands Foundation for the Advancement of Tropical Research (WOTRO-NWO).
- 09/96 - 12/96 ○ Research assistant. Temporary position at *Department of Human Nutrition* (WUR) within EUROFOOD-ENFANT project. Collection of data on carotenoid content of food for a dietary controlled trial. Assistance in preparation of module 'Food: Composition and Hygiene' of the NATURA-NECTAR program 'MSc in Food and Nutrition Sciences'.

Teaching

- 03/05 ○ Co-facilitator of Eastern, Central and Southern Africa Food Composition Course at *Centre for Nutrition, University Pretoria, South Africa* (UP).
- 01/05 ○ Development and teaching of practical about 'Data entry and descriptive statistics' for fourth year dietetic students at NWU.
- 09/04 ○ Co-facilitator of Micronutrient Malnutrition Course at UP.
- Since 09/04 ○ Supervision of one PhD student at *University Medical Center Nijmegen, Nijmegen, Netherlands*.
- Since 01/04 ○ Supervision of three MSc students and one PhD student at *North-West University* (NWU).
- 10/97 - 12/99 ○ Supervision of four MSc students at *Wageningen University* (WUR).

Miscellaneous

- 11/04 - 02/05 ○ NUTRITION consultant for *Human Sciences Research Council, South Africa*. Assistance in analysis and interpretation of data collected within a pilot project for a food insecurity and vulnerability information and mapping system for South Africa (FIVIMS-SA). Advice about incorporation of nutritional indicators in the FIVIMS model.
- Since 12/97 ○ Management of teams of up to ten people.
- 10/95 - 08/96 ○ EXTENSIONIST within *Proyecto Cuchumatanes, Guatemala*. Nutrition extension through demonstrations, a written manual and a course for employees and beneficiaries of a FAO/UNDP funded rural development project.

Skills

Languages

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|-----------------------------------|----------------------------|
| Mother tongue | ○ Dutch |
| Fluent | ○ English and Spanish |
| Bit rusted but latently available | ○ German and French |
| Basic conversation and reading | ○ Afrikaans and Indonesian |

Skills (cont'd)

Computing

- Office
 - Excellent command of common MS/Open Office applications (including database programmes)
- Statistical programmes
 - Excellent command of Statistical Software SPSS; limited command of Epi Info
- Miscellaneous
 - Excellent internet searching skills; good command of Reference Manager; limited command of LaTeX and Linux

Miscellaneous

- Dutch driving license
 - Valid until 10 July
- Qualified phlebotomist
 - No recent practice though
- Qualified first aider for workplace
 - Valid until December 2005

Selected courses

Discipline specific

- 03/97
 - Liquid Chromatography/Mass Spectrometry (Chicago, USA)
- 10/96
 - Food Composition Course (Wageningen, Netherlands)
- 06/94
 - Program Against Micronutrient Malnutrition Workshop towards elimination of Micronutrient Malnutrition (Papendal, Netherlands)

PhD activities

- 03/01
 - European Nutrition Leadership Programme (Luxembourg City, Luxembourg)
- 01/00
 - Management Course Graduate School VLAG (Wageningen, Netherlands)
- 08/99
 - Study tour for PhD students of the Department of Human Nutrition of WUR to South Africa. I co-organized this study tour.
- 04/97
 - Study tour for PhD students of the Department of Human Nutrition of WUR to Denmark, Norway and Sweden.

Additional activities

Membership of several scientific societies

Reviewer

- Since 2004
 - American Journal of Clinical Nutrition, Asia Pacific Journal of Clinical Nutrition, Archives of Biochemistry and Biophysics
- Since 2004
 - National Research Foundation of South Africa

Funding acquired

- 2005 - 2006
 - *National Research Foundation of South Africa*. Vitamin A equivalency of β -carotene in adults living with HIV/AIDS in South Africa.
- 2005 - 2006
 - *National Research Foundation of South Africa*. Bioavailability of iron in fortified maize meal and wheat flour in South African children.

Additional activities (cont'd)

- 2005 - 2007 ○ *South Africa Netherlands research Programme on Alternatives in Development* (SANPAD). South African arm of prospective urban rural epidemiology (PURE) study.
- 2003 - 2007 ○ *Netherlands Foundation for the Advancement of Tropical Research* (WOTRO-NWO). Effect of zinc and fat intake on bioefficacy of β -carotene in lactating Indonesian women.

Miscellaneous

- 01/04 ○ Keynote lecture at Gordon Research Conference on Carotenoids, Ventura Beach, USA: Bioavailability and bioconversion of β -carotene in oil and mixed plant foods.
- Since 10/03 ○ Initiator and co-organizer of research meetings within Department of Nutrition at NWU.

Fellowships and awards

- Since 01/05 ○ Postdoctoral fellowship award from the National Research Foundation of South Africa.
- 11/04 ○ Travel award from Catharina van Tussenbroek Foundation and North-West University for conference visit to attend XXII International Vitamin A Consultative Group meeting held in Lima, Peru and for work visit to 'Instituto de Nutrición y Tecnología de los Alimentos' in Santiago de Chile, Chile.
- 07/03 ○ Postdoctoral fellowship grant from North-West University, South Africa.
- 07/99 ○ Travel award from the International Carotenoid Society for oral presentation at the 12th International Symposium on Carotenoids held in Cairns, Australia.
- 03/99 ○ Travel award from Sight and Life for poster presentation and 2-minute oral presentation of statement and panel discussion at XIX International Vitamin A Consultative Group meeting held in Durban, South Africa.

Referees on request

Publications

Full papers

- submitted ○ O'Kennedy N, Crosbie L, **van Lieshout M**, Broom JI, Webb DJ, Duttaroy AK. Antiplatelet activity of tomato extract. Part I: Effects on platelet function in vitro and ex vivo - a time course cannulation study in healthy humans.
- 2003 ○ **van Lieshout M**, West CE, van de Bovenkamp P, Wang Y, Sun Y, van Breemen RB, Permaesih D, Muhilal, Verhoeven MA, Creemers AFL, Lugtenburg J. Extraction of carotenoids from feces, enabling the bioavailability of β -carotene to be studied in Indonesian children. *J Agric Food Chem* 2003;**51**:5123-30.
- 2003 ○ **van Lieshout M**, West CE, van Breemen RB. Isotopic tracer techniques for studying the bioavailability and bioefficacy of dietary carotenoids, particularly β -carotene, in humans: a review. *Am J Clin Nutr* 2003;**77**:12-28.
- 2002 ○ West CE, Eilander A, **van Lieshout M**. Consequences of revised estimates of carotenoid bioefficacy for the dietary control of vitamin A deficiency in developing countries. *J Nutr* 2002;**132**:2920S-6S.
⇒ See also corresponding letter to the editor by Russell et al. Retinol equivalency ratio of β -carotene. *J Nutr* 2003;**133**:2915-6.
⇒ See also West CE, Eilander A, **van Lieshout M**. Reply to Russell et al. *J Nutr* 2003;**133**:2917.
- 2001 ○ **van Lieshout M**, West CE, Muhilal, Permaesih D, Wang Y, Xu X, van Breemen RB, Creemers AFL, Verhoeven MA, Lugtenburg J. Bioefficacy of β -carotene dissolved in oil studied in children in Indonesia. *Am J Clin Nutr* 2001;**73**:949-58.
⇒ See also corresponding editorial by Solomons and Russell. 'Appropriate technology' for vitamin A field research. *Am J Clin Nutr* 2001;**73**:849-50.
- 2000 ○ Wang Y, Xu X, **van Lieshout M**, West CE, Lugtenburg J, Verhoeven MA, Creemers AFL, Muhilal, van Breemen RB. A liquid chromatography-mass spectrometry method for the quantification of bioavailability and bioconversion of β -carotene to retinol in humans. *Anal Chem* 2000;**72**:4999-5003.
- 1998 ○ van Breemen RB, Nikolic D, Xu X, Xiong Y, **van Lieshout M**, West CE, Schilling AB. Development of a method for quantitation of retinol and retinyl palmitate in human serum using high-performance liquid chromatography-atmospheric pressure chemical ionization-mass spectrometry. *J Chromatogr A* 1998;**794**:245-51.

Book chapter

- 2005 ○ **van Lieshout M** and West CE. Vitamin A in health and disease in developing countries. In: Packer L, Obermueller-Jevic U, Kraemer K, Sies H (eds.) *Carotenoids and retinoids: molecular aspects and health issues*. Champaign, IL: AOCS press, 2005 (275-294).

Other publications

- 2005 ○ **van Lieshout M** and de Pee S. Vitamin A equivalency estimates: understanding apparent differences. *Am J Clin Nutr* 2005;**81**:943-45.
- 2005 ○ Bouwman CA and **van Lieshout M**. Bioavailability and biofortification. *Sight and Life* 2005;**1**:28-29.

Publications (cont'd)

- 2004 ○ Schonfeldt H and **van Lieshout M** (eds.). Micronutrient Malnutrition. *Course Manual*. University Pretoria, South Africa, 2004.
⇒ **van Lieshout M** and West CE. Chapter 1. Introduction to Malnutrition.
⇒ **van Lieshout M** and West CE. Chapter 2. Vitamin A.
⇒ **van Lieshout M** and West CE. Chapter 8. Fighting micronutrient malnutrition.
⇒ **van Lieshout M**, Scott V, Chopra M, Sanders D. Chapter 9. Conceptual framework for understanding and combating micronutrient deficiencies.
- 2000 ○ van der Gaag M, **van Lieshout M**, Melse A, Olthof M, Tiemersma E, Vissers M. Stap naar hechtere samenwerking tussen Nederland en Zuid-Afrika. Wageningse aio's op studiereis naar Zuid-Afrika. (Towards close collaboration between Netherlands and South Africa. Wageningen's PhD's on a study trip to South Africa.) *Voeding Nu* 2000;**2**:28-9 (in Dutch).
- 1996 ○ West CE and **van Lieshout M**. Forum discussion: less vitamin A, more β -carotene? *Eur J Clin Nutr* 1996;**50**:85S-7S.
- 1996 ○ **van Lieshout M**. Manual de capacitación sobre nutrición familiar. (Manual for training in family nutrition.) Guatemala City: Proyecto de los Cuchumatanes, 1996 (in Spanish).

Selected abstracts in published conference proceedings

- 2004 ○ Bouwman CA, West CE, van Breemen RB, Zhu D, **van Lieshout M**, Siebelink E, Versloot P, Naber AHJ. Vitamin A equivalency of β -carotene in oil in healthy Dutch adults measured using specifically ^{13}C -labelled β -carotene and retinol. *Report of the XXII International Vitamin A Consultative Group meeting*. Washington, DC: ILSI, 2004,36 (abstr).
- 2004 ○ Schutte AE, **van Lieshout M**, Schwarz P, Olckers A, Huisman HW, van Rooyen JM, Kruger A, Malan NT. Difficulties in classifying Africans with the metabolic syndrome: The POWIRS study. *1st Regional Congress of the International Association for the Study of Obesity*. Sun City, South Africa (abstr).
- 2002 ○ van Breemen RB, Wang Y, **van Lieshout M**, West CE. Experimental design and application of LC-MS-MS and stable isotope labeling for determination of carotenoid bioavailability. *Proceedings 50th ASMS Conference on Mass Spectrometry and Allied Topics*. 2002;77-8.
- 2001 ○ **van Lieshout M**, West CE, Permaesih D, Muhilal, Wang Y, van Breemen RB, Creemers AFL, Verhoeven MA, Lugtenburg J. Bioefficacy of β -carotene in spinach and pumpkin consumed by Indonesian children. *Ann Nutr Metab* 2001;**45**:S35 (abstr).

Theses

- PhD ○ **van Lieshout M**. Bioavailability and bioefficacy of β -carotene measured using ^{13}C -labeled β -carotene and retinol: studies in Indonesian children. Wageningen: Wageningen University, 2001 (with summaries in English, Dutch, Indonesian and Spanish).
- MSc ○ **van Lieshout M**. The extent of conversion of β -carotene to retinol in man: development of a stable isotope method. Wageningen: Wageningen University, 1995.
- MSc ○ **van Lieshout M**. Jodium-opname door de schildklier in de jodiumdeficiënte, drachtige rat. Wageningen: Wageningen University, 1993 (in Dutch).