

DR PJ van Jaarsveld  
Non-Communicable Diseases Research Unit  
South African Medical Research Council  
Tel: 021-938-0261  
Email: paul.vanjaarsveld@mrc.ac.za

#### **Titles of MSc and PhD THESES**

---

1. **Van Jaarsveld PJ.** Production and characterisation of monoclonal anti-testosterone antibodies. M Sc Thesis, Department of Biochemistry, University of Stellenbosch, Stellenbosch, March 1986.
2. **Van Jaarsveld PJ.** The effect of n-3 fatty acid (fish oil) supplementation on plasma low-density lipoprotein composition and metabolism in vervet monkeys (*Cercopithecus aethiops*) on atherogenic or therapeutic diets. Ph D Thesis, Department of Biochemistry, University of Stellenbosch, Stellenbosch, Dec. 1994.

#### **PUBLICATIONS IN PEER REVIEWED JOURNALS**

---

1. Fincham JE, Gouws E, Woodroof CW, Van Wyk MJ, Kruger M, Smuts CM, **Van Jaarsveld PJ**, Taljaard JF, Schall R, Strauss JAdeW, Benadé AJS. Atherosclerosis: Chronic effects of fish oil and a therapeutic diet in nonhuman primates. *Arteriosclerosis and Thrombosis* 1991; 11:719-732.
2. Smuts CM, Kruger M, **Van Jaarsveld PJ**, Fincham JE, Schall R, Van der Merwe KJ, Benadé AJS. The influence of fish oil supplementation on plasma lipoproteins and arterial lipids in vervet monkeys with established atherosclerosis. *Prostaglandins Leukotrienes and Essential Fatty Acids* 1992; 47:129-138.
3. Tichelaar HY, Steyn NP, Badenhorst CJ, Nel JH, Smuts CM, **Van Jaarsveld PJ**, Benadé AJS. Epidemiological evidence of impaired fatty acid status of undernourished rural primary school children in Lebowa. *S Afr J Food Sci Nutr* 1994; 6:60-65.
4. **Van Jaarsveld PJ**, Tichelaar HY, Dhansay MA, Smuts CM, Faber M, Van Staden E, Benadé AJS. The essential fatty acid status of pregnant women from a community with low socio-economic status. *Med Sci Res* 1994; 22:719-721.
5. Smuts CM, Tichelaar HY, **Van Jaarsveld PJ**, Badenhorst CJ, Kruger M, Laubscher R, Mansvelt EPG, Benadé AJS. The effect of iron fortification on the fatty acid composition of plasma and erythrocyte membranes in primary school children with and without iron-deficiency. *Prostaglandins Leukotrienes and Essential Fatty Acids* 1994; 51:277-285.
6. Tichelaar HY, Steyn NP, Nel JH, Smuts CM, **Van Jaarsveld PJ**, Prinsloo JF, Van Rijswijk AW, Dhansay MA, Benadé AJS. Fatty acid and nutritional status of undernourished rural Pedi preschool children under 6 years of age in Lebowa. *S Afr J Food Sci Nutr* 1995; 7:27-32.
7. Tichelaar HY, Dhansay MA, Smuts CM, Faber M, **Van Jaarsveld PJ**, Oelofse A, Van Staden E, Benadé AJS. Fatty acid and nutritional status in children under two years of age from a low socio-economic community. *S Afr J Food Sci Nutr* 1995; 7:109-114.
8. Smuts CM, Tichelaar HY, **Van Jaarsveld PJ**, Van Rooyen J, Benadé AJS. Essential fatty acids and modern lifestyle: a reappraisal. *Asia Pacific J Clin Nutr* 1996; 5(3):149-156.
9. Benadé AJS, Fincham JE, Smuts CM, Weight MJ, **Van Jaarsveld PJ**, Kruger M. Vervet monkeys and whole-food diets for studying the effects of dietary lipids on plasma lipoprotein metabolism and atherosclerosis. *Asia Pacific J Clin Nutr* 1997; 6(1):17-21.
10. **Van Jaarsveld PJ**, Smuts CM, Tichelaar HY, Kruger M, Lombard CJ, Benadé AJS. The influence of different ratios and dosages of an  $\omega$ 6: $\omega$ 3 fatty acid supplement on the lipoprotein cholesterol and fatty acid profile in nonhuman primates on a Western atherogenic diet. *Nutr Res* 1997; 17(11/12):1733-1747.
11. Tichelaar HY, **Van Jaarsveld PJ**, Smuts CM, Marais M, Mdhluli MC, Kruger M, Benadé AJS. Plasma and red blood cell total phospholipid fatty acid status of nonpregnant female Vervet monkeys (*Cercopithecus aethiops*) on a high carbohydrate maintenance diet. *J Med Primatol* 1998; 27:240-243.

12. Smuts CM, Tichelaar HY, Kirsten GF, Dhansay MA, Faber M, **Van Jaarsveld PJ**, Benadé AJS. The effect of parenteral nutrition with Lipovenous or Intralipid on the fatty acid composition of plasma and erythrocyte membrane lipids in very-low-birth-weight infants. *S Afr Med J* 1999; 89:687-694.
13. Tichelaar HY, Steyn NP, Nel JH, Smuts CM, **Van Jaarsveld PJ**, Prinsloo JF, Van Rooyen J, Lombard CJ, Dhansay MA, Benadé AJS. Effect of catfish supplementation on the fatty acid status and growth of undernourished rural preschool children under 6 years of age: An intervention trial in Lebowa, South Africa. *Asia Pacific J Clin Nutr* 1999; 8(2):96-105.
14. **Van Jaarsveld PJ**, Smuts CM, Tichelaar HY, Kruger M, Benadé AJS. Effect of palm oil on plasma lipoprotein concentrations and plasma low-density lipoprotein composition in non-human primates. *Int J Food Sci Nutr* 2000; 51(suppl 1):S21-S30.
15. **Van Jaarsveld PJ**, Benadé AJS. Effect of palm olein oil in a moderate fat diet on low-density lipoprotein composition in non-human primates. *Asia Pacific J Clin Nutr* 2002; 11:S416-S423.
16. **Van Jaarsveld PJ**, Smuts CM, Benadé AJS. Effect of palm olein oil in a moderate-fat diet on plasma lipoprotein profile and aortic atherosclerosis in non-human primates. *Asia Pacific J Clin Nutr* 2002; 11:S424-S432.
17. **Van Jaarsveld PJ**, Faber M, Tanumihardjo SA, Nestel P, Lombard CJ, Benadé AJS.  $\beta$ -carotene-rich orange-fleshed sweet potato improves the vitamin A status of primary school children assessed with the modified-relative-dose-response test. *Am J Clin Nutr* 2005; 81:1080-1087.
18. **Van Jaarsveld PJ**, Marais DeW, Harmse E, Nestel P, Rodriguez-Amaya DB. Retention of  $\beta$ -carotene in boiled, mashed orange-fleshed sweet potato. *J Food Comp Anal* 2006; 19:321-329.
19. Wenhold FAM, Faber M, Van Averbeke W, Oelofse A, **Van Jaarsveld P**, Jansen van Rensburg WS, Van Heerden I, Slabbert R. Linking smallholder agriculture and water to household food security and nutrition. *Water SA* 2007; 33 (special edition):327-336.
20. Jansen van Rensburg WS, Van Averbeke W, Slabbert R, Faber M, **Van Jaarsveld P**, Van Heerden I, Wenhold F, Oelofse A. African leafy vegetables in South Africa. *Water SA* 2007; 33 (special edition):317-326.
21. Faber M, **Van Jaarsveld PJ**, Laubscher R. The contribution of dark-green leafy vegetables to total micronutrient intake of two- to five-year-old children in a rural setting. *Water SA* 2007; 33 (special edition):407-412.
22. Idindili B, Masanja H, Urassa H, Bunini W, **Van Jaarsveld P**, Aponte JJ, Kahigwa E, Mshinda H, Ross D, Schellenberg DM. Randomized controlled safety and efficacy trial of 2 vitamin A supplementation schedules in Tanzanian infants. *Am J Clin Nutr* 2007; 85:1312-1319.
23. Faber M, **Van Jaarsveld PJ**. Review. The production of provitamin A-rich vegetables in home-gardens as a means of addressing vitamin A deficiency in rural African communities. *J Sci Food Agric* 2007; 87:366-377.
24. Low J, **Van Jaarsveld PJ**. The potential contribution of bread buns fortified with beta-carotene rich sweet potato in Central Mozambique. *Food Nutr Bull* 2008; 29:98-107.
25. Hon G, Hassan M, Van Rensburg S, Abel S, Marais D, **Van Jaarsveld P**, Smuts C, Henning F, Erasmus R, and Matsha T. Erythrocyte membrane fatty acids in patients with multiple sclerosis. *Multiple Sclerosis* 2009; 15:759-62.
26. Hon G, Hassan M, van Rensburg SJ, Abel S, Marais DW, **Van Jaarsveld P**, Smuts C, Henning F, Erasmus R, Matsha T. Immune cell membrane fatty acids and inflammatory marker, C-reactive protein, in patients with multiple sclerosis. *British Journal of Nutrition* 2009; 102:1334-40.
27. Hon GM, Hassan MS, van Rensburg SJ, Abel S, **Van Jaarsveld P**, Erasmus RT, Matsha T. Red blood cell membrane fluidity in the etiology of multiple sclerosis. *Journal of Membrane Biology* 2009; 232:25-34.
28. Faber M, Oelofse A, **Van Jaarsveld PJ**, Wenhold FAM, Jansen van Rensburg W. African leafy vegetables consumed by households in the Limpopo and KwaZulu-Natal provinces in South Africa. *South African Journal of Clinical Nutrition* 2010; 23(1):30-38.

29. Laurie SM, Faber M, **Van Jaarsveld PJ**, Laurie RN, du Plooy CP, Modisane PC.  $\beta$ -Carotene yield and productivity of orange-fleshed sweet potato (*Ipomoea batatas* L. Lam.) as influenced by irrigation and fertilizer application treatments. *Scientia Horticulturae* 2012; 142:180–184.
30. Hotz C, Loechl C, de Brauw A, Eozenou P, Gilligan D, Moursi M, Munhau B, **Van Jaarsveld P**, Carriquiry A, Meenakshi JV. A large-scale intervention to introduce orange sweet potato in rural Mozambique increases vitamin A intakes among children and women. *British Journal of Nutrition* 2012; 108:163-176.
31. Laurie SM, **Van Jaarsveld PJ**, Faber M, Philpott MF, Labuschagne MT. Trans- $\beta$ -carotene, selected mineral content and potential nutritional contribution of 12 sweetpotato varieties. *Journal of Food Composition and Analysis* 2012;(27):151-159.
32. Faber M, Laurie SM, **Van Jaarsveld PJ**. Total  $\beta$ -carotene content of orange sweetpotato cultivated under optimal conditions and at a rural village. *African Journal of Biotechnology* 2013; 12(25):3947-3951.
33. **Van Jaarsveld P**, Faber M, van Heerden I, Wenhold F, Jansen van Rensburg W, van Averbeke W. Nutrient content of eight African leafy vegetables and their potential contribution to dietary reference intakes. *Journal of Food Composition and Analysis* 2014; 33:77–84.
34. Faber M, **Van Jaarsveld PJ**, Kunneke E, Kruger HS, Schoeman SE, van Stuijvenberg ME. Vitamin A and anthropometric status of South African preschool children from four areas with known distinct eating patterns. *Nutrition* 2015; 31:64-71.
35. **Van Jaarsveld PJ**, Faber M, van Stuijvenberg ME. Vitamin A, iron and zinc content of fortified maize meal and bread at the household-level in four areas of South Africa. *Food and Nutrition Bulletin* 2015; 36(3):315-326.
36. Tanumihardjo SA, Gannon BM, Suri D, **van Jaarsveld PJ**. Concerns when serum retinol concentration is the primary biological indicator of vitamin A status in intervention studies. *American Journal of Clinical Nutrition* 2016; 104:235–7.
37. Rodgers AL, Jappie-Mahomed D, **van Jaarsveld PJ**. Different effects of  $\gamma$ -linolenic acid (GLA) supplementation on plasma and red blood cell phospholipid fatty acid composition and calcium oxalate kidney stone risk factors in healthy subjects from two race groups with different risk profiles pose questions about the GLA-arachidonic acid-oxaluria metabolic pathway: pilot study. *Urolithiasis* 2018; 46(2): 137-147. <https://doi.org/10.1007/s00240-017-0989-7>.
38. Chimhashu T, Malan L, Baumgartner J, **van Jaarsveld PJ**, Galetti V, Moretti D, Smuts CM, Zimmermann MB. Sensitivity of fatty acid desaturation and elongation to plasma zinc concentration: a randomised controlled trial in Beninese children. *British Journal of Nutrition* 2018; 119(6):610-619.
39. Goedecke JH, Mendham AE, Clamp L, Nono Nankam PA, Fortuin-de Smidt MC, Phiri L, Micklesfield LK, Keswell D, Woudberg NJ, Lecour S, Alhamud A, Kaba M, Lutomia FM, **van Jaarsveld PJ**, de Villiers A, Kahn SE, Chorell E, Hauksson J, Olsson T. An exercise intervention to unravel the mechanisms underlying insulin resistance in a cohort of black South African women: Protocol for a randomized controlled trial and baseline characteristics of participants. *JMIR Res Protoc* 2018; 7(4):e75; DOI:10.2196/resprot.9098.
40. Mondloch SJ, Tanumihardjo SA, Davis CR, **van Jaarsveld PJ**. Hepatic vitamin A concentrations in vervets (*Chlorocebus aethiops*) supplemented with carotenoids derived from oil palm. *Journal of the American Association for Laboratory Animal Science* 2018; 57(5): 456-464. DOI:10.30802/AALAS-JAALAS-17-000148.
41. Mentoor I, Engelbrecht A-M, **van Jaarsveld PJ**, Nell T. Chemoresistance: Intricate interplay between breast tumour cells and adipocytes in the tumour microenvironment. Review article. *Frontiers in Endocrinology: Cancer Endocrinology* 2018; 9:758. DOI:10.3389/fendo.2018.00758.
42. Rodgers AL, Jappie-Mahomed D, **van Jaarsveld PJ**. Testing the dogma that total phospholipid fatty acid composition of blood plays a role in kidney stone pathogenesis, using a high–low risk human model: results from a pilot study. *Urolithiasis* 2019; 47(3): 255-261. DOI.org/10.1007/s00240-018-1071-9.
43. Faber M, de Villiers A, Hill J, **van Jaarsveld PJ**, Okeyo AP, Seekoe E. Nutrient profile and energy cost of food sold by informal food vendors to learners in primary and secondary schools in the Eastern Cape, South Africa. *Public Health Nutrition* 2019; 22(3): 521-530. doi.org/10.1017/S1368980018003464.

44. Mentoor IL, Nell T, Emjedi Z, **van Jaarsveld PJ**, de Jager L, Engelbrecht A-M. Decreased efficacy of doxorubicin corresponds with modifications in lipid metabolism markers and fatty acid profiles in breast tumours from obese versus lean mice. *Frontiers in Oncology, section Cancer Metabolism*. Front. Oncol., 17 March 2020; <https://doi.org/10.3389/fonc.2020.00306>.
45. Nono-Nankam PA, **van Jaarsveld PJ**, Chorell E, Fortuin-de Smidt MC, Adams K, Blüher M, Olsson T, Mendham AE, Goedecke JH. Circulating and adipose tissue fatty acid composition in black South African women with obesity: A cross-sectional study. *Nutrients* 2020; 12(6):1619; [doi:10.3390/nu12061619](https://doi.org/10.3390/nu12061619).
46. Nono-Nankam PA, Mendham AE, **van Jaarsveld PJ**, Adams K, Fortuin-de Smidt MC, Clamp L, Blüher M, Goedecke JH. Exercise training alters red blood cell fatty acid desaturase indices and adipose tissue fatty acid profile in African women with obesity. *Obesity* 2020; 28:1456-1466; [doi.org/10.1002/oby.22862](https://doi.org/10.1002/oby.22862).
47. Goedecke JH, Chorell E, **van Jaarsveld PJ**, Risérus U, Olsson T. Fatty acid metabolism and associations with insulin sensitivity differs between black and white South African women. *The Journal of Clinical Endocrinology & Metabolism*, 30 September 2020, [doi.org/10.1210/clinem/dgaa696](https://doi.org/10.1210/clinem/dgaa696).
48. Mentoor I, Engelbrecht A-M, van de Vyver M, **van Jaarsveld PJ**, Nell T. The paracrine effects of adipocytes on lipid metabolism in doxorubicin-treated triple negative breast cancer cells. *Adipocyte* 2021; 10:1: 505-523. <https://doi.org/10.1080/21623945.2021.1979758>.
49. Kotzé-Hörstmann L, Cois A, Johnson R, Mabasa L, Shabalala S, **van Jaarsveld PJ** and Sadie-Van Gijsen H. Characterization and comparison of the divergent metabolic consequences of high-sugar and high-fat diets in male Wistar Rats. *Front. Physiol.* 13:904366. <https://doi.org/10.3389/fphys.2022.904366>.

## CHAPTERS IN BOOKS

---

1. Hon GM, Abel S, Smuts CM, **Van Jaarsveld P**, Hassan MS, van Rensburg SJ, Erasmus RT and Matsha T (2012). Chapter 7. Gas Chromatography Results Interpretation: Absolute Amounts Versus Relative Percentages, pp 141-160, *Gas Chromatography - Biochemicals, Narcotics and Essential Oils*, Bekir Salih and Ömür Çelikbiçak (Ed.), ISBN: 978-953-51-0295-3, InTech. Available from: <http://www.intechopen.com/books/gas-chromatography-biochemicals-narcotics-and-essential-oils/gas-chromatography-results-interpretation-absolute-amounts-and-relative-percentages>.
2. **Van Jaarsveld PJ**, Faber M. Sweetpotato as a staple or complementary food. In: Tanumihardjo SA (ed). *Carotenoids and Human Health*. Springer Science + Business Media, LLC, New York, pp 303 – 315, 2013; *invited chapter*.
3. Faber M, Laurie SM, **Van Jaarsveld PJ**. Critical issues to consider in the selection of crops in a food-based approach to improve vitamin A status – based on a South African experience. In: Thompson B, Amoroso L (eds). *Improving diets and nutrition. Food-based approaches. CABI and FAO*, pp 45 – 57, April 2014.
4. Low JW, Ball A, **van Jaarsveld PJ**, Namutebi A, Faber M, Grant FK. Assessing nutritional value and changing behaviours regarding orange-fleshed sweetpotato use in Sub-Saharan Africa. In: Low JW et al (eds). *Potato and sweetpotato in Africa: Transforming the value chains for food and nutrition security*. CAB International 2015; 551 – 579.

## TECHNICAL RESEARCH REPORTS / CHAPTERS IN RESEARCH REPORTS

---

1. **Van Jaarsveld PJ**, Faber WM, Tanumihardjo SA, Lombard CJ, Benadé AJS. The efficacy of orange-fleshed sweetpotato to improve vitamin A status of children 5-10 years of age. Final Report to The Micronutrient Initiative, Ottawa, Canada, May 2003.
2. Faber M, Laurie S, **Van Jaarsveld P**. Nutrient content and consumer acceptability for different cultivars of orange-fleshed sweetpotato. Research Report to October 2008 – Project No 202: South African Sugar Association, October 2008.

3. Faber M, Laurie S, **Van Jaarsveld P**. Proceedings: Orange-fleshed Sweetpotato Symposium – 3 October 2007. March 2008; ISBN:978-1-920014-45-4.
4. van Stuijvenberg ME, **Van Jaarsveld PJ**, Strydom EE, Faber M. Evaluation of a new rapid test assay for serum retinol under field conditions: comparison with an established HPLC method. Report to funders: Sight and Life Project, October 2012.
5. Van Averbeké W, Jansen van Rensburg WS, Slabbert MM, Chabalala MP, Faber M, **Van Jaarsveld P**, van Heerden I, Wenhold F, Oelofse A. Chapter 3: African leafy vegetables. In: Oelofse & van Averbeké (eds), Nutritional value and water use of indigenous crops for improved livelihoods. Water Research Commission, September 2012, 39-67.
6. **Van Jaarsveld PJ**, Faber M, van Heerden I. Chapter 9: Selected vitamin and mineral content of the eight African leafy vegetables and their potential contribution to individual nutrient requirements. In: Oelofse & van Averbeké (eds), Nutritional value and water use of indigenous crops for improved livelihoods. Water Research Commission, September 2012, 227-243.
7. Faber M, Oelofse A, **Van Jaarsveld PJ**, Wenhold F, Jansen van Rensburg W. Chapter 11: Availability and household consumption of African leafy vegetables in selected sites in KwaZulu Natal and Limpopo provinces. In: Oelofse & van Averbeké (eds), Nutritional value and water use of indigenous crops for improved livelihoods. Water Research Commission, September 2012, 263-293.