Curriculum Vitae of FH van der Westhuizen

1. General information

Title, name and surname:	Prof Francois H van der Westhuizen
Date of birth:	17-12-1969
Citizenship:	South African
Professional registrations:	HPCSA, Medical Biological Scientist (MW 0012335)

2. Contact details

Organisation where based:	North-West University (NWU)
Faculty and School:	Natural Sciences, School for Physical and Chemical Sciences (SFCS), Division of Biochemistry
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Website address:	http://natural-sciences.nwu.ac.za/biochemistry
Work postal address:	Private Bag X6001 Potchefstroom 2531
Work physical address:	Building F3, Office number 109 North-West University (NWU) Potchefstroom Campus Hoffman street Potchefstroom 2531

3. Qualifications

Qualification type:	PhD
Field of study:	Biochemistry
Institution:	North-West University
Year obtained:	1998

4. Employment history

Position:	Organisation	Appointed from – to:
Junior Lecturer	North-West University	1993 – 1994
Lecturer	North-West University	1995 –1998
Senior Lecturer	North-West University	1999 –2005
Associate Professor	North-West University	2006 – 2012
Professor	North-West University	Since 2013
Chair of Biochemistry	North-West University	2012 – 2015

5. Research expertise

Scientific domain:	Natural Sciences
Main research field:	Biochemistry
Fields of specialisation:	Mitochondrial energy metabolism and disease
NRF rating and year rated:	C2 (2012)
Number of accredited, peer-reviewed publications	68
ORCID	orcid.org/0000-0002-7879-1776
H-index	23
Post-graduate students	32 (20 x MSc; 12 x PhD)

6. Publications (since 2014, impact factor in brackets)

- Dercksen M, Ijlst L, Duran M, Mienie LJ, van Cruchten A, van der Westhuizen FH, Wanders RJA. 2014. Inhibition of N-acetylglutamate synthase by various monocarboxylic and dicarboxylic short-chain coenzyme A esters and the production of alternative glutamate esters. BBA Molecular Basis of Disease 1842, 2510-2516 (IF 5.387).
- Mels CM, Schutte AE, Schutte R, Pretorius PJ, Smith W, Huisman HW, van der Westhuizen FH, Fourie CM, van Rooyen JM, Kruger R, Louw R, Malan NT, Malan L. 2014. 8-Oxo-7,8-dihydro-2'-deoxyguanosine, reactive oxygen species and ambulatory blood pressure in African and Caucasian men: The SABPA study. Free Radical Research 6:1-21 (IF 3.28).
- von Känel R, Malan N, Hamer M, van der Westhuizen FH, Malan L. 2014. Leukocyte telomere length and hemostatic factors in a South African cohort: The SABPA Study. Journal of Thrombosis and Hemostasis 12, 1975-1985 (IF 5.55).
- Venter L, Lindeque JZ, Jansen van Rensburg P, van der Westhuizen FH, Smuts I, Louw R. 2015. Untargeted urine metabolomics reveals a biosignature for muscle respiratory chain deficiencies. Metabolomics 11, 111-121 (IF 4.505).
- Lindeque JZ, Jansen van Rensburg PJ, Louw R, van der Westhuizen FH, Florit S, Ramírez L, Giralt M, Hidalgo J. 2015. Obesity and Metabolomics: Metallothioneins protect against high-fat diet-induced consequences in metallothionein knockout mice. Omics 19, 92-103. (IF 2.73).
- van Deventer CA, Lindeque JZ, Jansen van Rensburg PA, Malan L, van der Westhuizen FH, Louw R. Use of metabolomics to elucidate the metabolic perturbation associated with hypertension in a black South African male cohort: The SABPA Study. Journal of the American Society of Hypertension, in press (IF 2.84).
- van der Westhuizen FH, Sinxadi P, Dandara C, Smuts I, Riordan G, Meldau S, Malik A, Sweeney M, Tsai Y, Towers W, Louw R, Gorman G, Payne B, Soodyall H, Pepper MS, Elson JL. 2015. Understanding the implication of mitochondrial DNA variation in the health of Black South African populations. 36, 569-571 (IF 5.12).
- van der Sluis R, Badenhorst CPS, Erasmus E, van Dyk E, van der Westhuizen FH, van Dijk AA. 2015. Conservation of the coding regions of the glycine N-acyltransferase gene further suggests that glycine conjugation is an essential detoxification pathway. Gene 571, 126-134 (IF 2.443).
- Meldau S, Riordan G, van der Westhuizen FH, Elson JM, Smuts I, Pepper MS, Soodyall H. 2016. Could we offer mitochondrial donation or similar assisted reproductive technology to South African patients with mitochondrial DNA disease? South African Medical Journal 106, 234-236 (IF 1.325).
- Haylett W, Swart C, van der Westhuizen FH, van Dyk HC, van der Merwe L, van der Merwe C, Loos B, Carr J, Kinnear C and Bardien S. (2016). Altered mitochondrial respiration and other features of mitochondrial function in parkin-mutant fibroblasts from Parkinson's disease patients. In print, Parkinson's Disease (IF 2.01).
- Zanderg L, HC van Dyk, van der Westhuizen FH, van Dijk AA. 2016. A 3-methylcrotonyl-CoA carboxylase deficient human skin fibroblast transcriptome reveals underlying mitochondrial dysfunction and oxidative stress. The International Journal of Biochemistry and Cell Biology 78, 116-129 (IF 4.24).
- van der Merwe C, van Dyk HC, Engelbrecht L, van der Westhuizen FH, Kinnear C, Loos B, Bardien S. 2017. Curcumin rescues a PINK1 knock down SH-SY5Y cellular model of Parkinson's disease from mitochondrial dysfunction and cell death. Molecular Neurobiology, 54, 2752-2762 (IF 5.47).
- Venter M, Malan L, van Dyk E, Elson JL, van der Westhuizen FH. 2017. Using MutPred derived mtDNA load scores to evaluate mtDNA variation in hypertension and diabetes in a two-population cohort: The SABPA study. Journal of Genetics and Genomics 44, 139-149 (IF 3.98).

- Barkhuizen M, Anderson DG, van der Westhuizen FH, Grobler A. 2017. A molecular analysis of the GBA gene in Caucasian South Africans with Parkinson's disease. In print Molecular Genetics & Genomic Medicine (IF 2.62). doi: 10.1002/mgg3.267.
- Schoeman E, van der Westhuizen FH, Erasmus E, van Dyk E, Knowles, CVY; Al-Ali S, Wan-Fai N, Taylor RW, Newton JL, Elson JL. 2017. Clinically proven mtDNA mutations are not common in those with Chronic Fatigue Syndrome. In print BMC Medical Genetics (IF 2.09).
- Aucamp J, Bronkhorst AJ, Peters DL, Van Dyk HC, van der Westhuizen FH, Pretorius PJ. 2017. Kinetic analysis, size profiling and bioenergetic association of DNA released by selected cell lines *in vitro.* In print Cellular and Molecular Life Sciences (IF 5.81).

7. Papers delivered (since 2014 as presenting author)

- van der Westhuizen FH. Sequencing the genes of the OXPHOS system using Ion Torrent Technology. Ion World tour, Radison Hotel, Cape Town. October 2014. Keynote lecture.
- van der Westhuizen FH. Functional approaches to investigate mtDNA pathogenic variants. Seminar entitled "Building capacity to investigate mitochondrial DNA variants in Black African population".Willows Garden Court Hotel, Potchefstroom, South Africa, Nov 8 -11, 2014. Oral presentation and seminar co-host.
- van der Westhuizen FH, Louw R, Smuts I. Investigating mitochondrial disorders in the South African context: meeting diversity with modern-day science. 7th Mitochondrial Physiology School 2015, Cape Town, South Africa, 24 - 27 March, 2015. Keynote Lecture.
- van der Westhuizen FH. Diagnosis of Mitochondrial Disease in the South African Context. Rare Disease Conference (RareX) & 11th International Conference on Rare Disease and Orphan Drugs (ICORD), Cape Town, Oct 2016. Opening plenary lecture.
- van der Westhuizen FH. Investigating mitochondrial dysfunction in inherited and non-communicable diseases. Trilateral Mitochondrial workshop (SA-UK- Egypt) on Enhancing physiological understanding of exercise and obesity: designing personalized intervention strategies. Stellenbosch, Jan 30 – Feb 2, 2017. Plenary Lecture.