

# CV OF MARLON CERF

## CAREER SUMMARY

Researcher and research manager with expertise in health and medical research in non-communicable diseases (diabetes, cardiovascular disease, nutrition, maternal and child health) and global health (Sustainable Development Goals, African health landscape, global health strategy and implementation). Editorial Board member.

## CONTACT

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Current location: Cape Town, South Africa

## EDUCATION

Stellenbosch University, PhD (Histology) in Health Sciences, 2003-2004

Wrote my own PhD proposal and secured a research grant to fund my entire doctoral studies. Published 4 articles while registered for my PhD, with 7 articles post-PhD that were related to my studies. Graduated within 2-3 years of registration. Selected for EASD young scientists training program (one of 18 delegates globally), secured a travel grant and delivered an oral presentation, to open the fetal programming stream, at the global EASD annual conference a year post-PhD (2006). Stellenbosch University, MBA, 2008-2009 Eight distinctions with completion of dissertation prior to final assignment and examination, with additional credits for extra electives and a post-MBA course in Management Consulting. Key focus on Sustainable Leadership and Project Management.

University of Natal, MMedSc (Pharmacology) (I conducted research at Ludwig-Maximilians University in Munich, Germany, fully sponsored by the Volkswagen Foundation)

Two international articles were published from my masters research

University of Western Cape, BSc (Honors) in Physiology

University of the Western Cape, BSc in Microbiology and Physiology

## THESES AND DISSERTATIONS

PhD: The effect of an in utero high fat diet on the expression of transcription factors and glucose sensing in the developing rat pancreas (Diabetes, Islet Biology, Nutrition, Pediatrics)

## KEY RESPONSIBILITIES, SKILLS AND ACTIVITIES

### RESEARCH

- Research grant holder (continuous research funding from 2002) supplemented by incentive funding awards and travel grants from international organizations such as the European Association for the Study of Diabetes (EASD), International Diabetes Federation (IDF) and International Society for Developmental Origins of Health and Disease (DOHaD) and National Research Foundation (NRF)
- Principal Investigator of the Developmental Programming and Metabolic Disease research group
- Financial management of research grants and budgets for multisite projects (Cape Town, Durban, Pretoria, Madrid)
- Implement the Developmental Programming and Metabolic Disease research group's alignment with the department, organization, nationally and globally
- Supervisor of several multisite research projects
- Project and General Manager for Proteomics (data analysis to support patent/innovation applications)
- Supervisor of masters and doctoral candidates in health sciences, business and management disciplines
- Mentor for doctoral and postdoctoral researchers at various USA and Brazilian institutions
- Examiner of masters and doctoral theses
- Scientific panel member for research grants
- Honors lecturing, marking of scripts, reviewing of proposals, examination of thesis (Medical Physiology, Stellenbosch University)

### RESEARCH COMMUNICATION

- Chief Editor for a book (sourced authors, reviewed and revised all chapters): Developmental Programming of Diabetes and Metabolic Syndrome, Research Signpost <http://www.research.com/UserBookDetail.aspx?bkid=777&catid=189>
- Author of scientific articles and book chapters
- Editorial board member and reviewer for international journals
- Speaker at the EASD – attracts ~15,000 delegates; Fetal and Neonatal Physiological Society (FNPS); and Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA) conferences
- Guest Speaker at the University of Complutense; Fundacion Jimenez Diaz; University of San Pablo; and the University of Barcelona in Spain
- Guest Speaker at the first Ibero-America DOHaD meeting in Ponta Grossa, Brazil
- Guest Speaker at the University of Maringa, Brazil
- Guest Speaker at Islets Conference, Cape Town
- Presenter at 30 national and international conferences
- Speaker at Golden Circle Kenilworth Racecourse and the Diabetes Society of South Africa (diabetes awareness)
- Interviewee on live television, Hectic Nine 9 on SABC 2 on 25 August 2009 (diabetes awareness)
- Interviewee on radio stations, SAfm and SABC Durban, 20 and 23 February 2015 (obesity and intergenerational transmission of disease)
- Grant and proposal reviewer for Diabetes UK, MRC UK, Dr Hadwen Trust UK, Willy Gepts Foundation Belgium, Wetenschappelijk Onderzoek Vlaanderen FWO Belgium, Cariplo Foundation Italy, National Science Centre (Narodowe Centrum Nauki) Poland, India Alliance, SAMRC, National Research Foundation (NRF), University of the Western Cape, Stellenbosch University, Cape Peninsula University of Technology, University of Pretoria, University of Kwa-Zulu Natal
- Chair scientific sessions at international conferences (DOHaD) and national research symposiums

### PUBLICATIONS

1. Cerf ME. 2019. Meeting universal health coverage in Africa: the challenge of human resources. International Journal of Healthcare Management. In press.

MBA: Opportunities for organisational training in the virtual world, Second Life (Strategy, Human Resources, Project Management, Leadership)  
MMedSc: Isolation, identification, immunolocalisation and elucidation of the role of plasma kallikrein in human tissues (Cardiovascular Disease, Neuroscience)  
BSc (Honours): The effect of oleanolic acid on G1 and S phase HeLa cells (Cancer)

## WORK EXPERIENCE

**Senior Program Manager, South African Medical Research Council (SAMRC), 2018–**

**Specialist Scientist, SAMRC, 2007-**

Head: Corporate Performance (Corporate Strategy and Knowledge Management), SAMRC, 2017-2018

Chief of Staff (Chief Strategy Officer), SAMRC, 2014-2017

Head: Project Management Office (Project Director), SAMRC, 2015-2017

Senior Scientist (Seasoned), Diabetes Discovery Platform, SAMRC, 2006-2007

Senior Scientist, Diabetes Research Group, SAMRC, 2004-2006

Scientist, Diabetes Research Group, SAMRC, 2001-2004

Research Associate, Centre for Proteome Analysis, University of Southern Denmark, Denmark, 2005

Researcher, Institute for Clinical Chemistry and Clinical Biochemistry, Ludwig-Maximilians University, Munich, Germany, 1998

## EDITORSHIP

Drugs in Context

Frontiers in Diabetes

Frontiers in Endocrinology – Diabetes:

Molecular Mechanisms

Frontiers in Epigenomics and Epigenetics

Frontiers in Integrative Physiology

International Journal of Biomedical Science

Islets

Journal of Fundamental and Applied Sciences

World Journal of Translational Medicine

## ACHIEVEMENTS

International Diabetes Federation (IDF) travel award, 2013

Developmental Origins of Health and Disease (DOHaD) travel award, 2011

National Research Foundation (NRF) grant holder, 2008-

Selected twice for European Association for the Study of Diabetes Scientist Training Course, 2005, 2010 (travel award)

Biography included in Marquis Who's Who in the World, 2007

Biography included in Marquis Who's Who in Medicine and Healthcare, 2006

2. Cerf ME. 2019. Sustainable Development Goal integration, interdependence, and implementation: the environment-economic-health nexus and universal health coverage. *Global Challenges* 3: 1900021.

3. Cerf ME. 2018. High fat programming and cardiovascular disease. *Medicina* 54:E86.

4. Cerf ME. 2018. Cardiac glucolipotoxicity and cardiovascular outcomes. *Medicina* 54:E70.

5. Cerf ME. 2018. The Sustainable Development Goals: contextualizing Africa's economic and health landscape. *Global Challenges* 2:1800014.

6. Govindsamy A, Naidoo S, Cerf ME. 2018. Cardiac development and transcription factors: insulin signalling, insulin resistance, and intrauterine nutritional programming of cardiovascular disease. *Journal of Nutrition and Metabolism* 2018:8547976.

7. Cerf ME, Herrera E. 2016. High fat diet administration during specific periods of pregnancy alters maternal fatty acid profiles in the near-term rat. *Nutrients* 8:E25.

8. Dassaye R, Naidoo S, Cerf ME. 2016. Transcription factor regulation of pancreatic organogenesis, differentiation and maturation. *Islets* 8:13-34.

9. Cerf ME, Louw J, Herrera E. 2015. High fat diet exposure during fetal life enhances plasma and hepatic omega-6 fatty acid profiles in fetal Wistar rats. *Nutrients* 7:7231-7241.

10. Cerf ME. 2015. High fat programming of beta cell compensation, exhaustion, death and dysfunction. *Pediatric Diabetes* 16:71-78.

11. Ayepola OR, Cerf ME, et al. 2014. Kolaviron, a biflavonoid complex of *Garcinia kola* seeds modulates apoptosis by suppressing oxidative stress and inflammation in diabetes-induced nephrotoxic rats. *Phytomedicine* 21:1785-1793.

12. Cerf ME, Louw J. 2014. Islet cell response to high fat programming in neonate, weanling and adolescent Wistar rats. *Journal of the Pancreas* 15:228-236.

13. Cerf ME. 2013. Beta cell dynamics: beta cell replenishment, beta cell compensation and diabetes. *Endocrine* 44:303-311.

14. Cerf ME. 2013. Beta cell dysfunction and insulin resistance. *Frontiers in Endocrinology* 4:37.

15. Cerf ME, et al. 2012. High fat programming of hyperglycemia, hyperinsulinemia, insulin resistance, hyperleptinemia and altered islet architecture in 3 month old Wistar rats. *ISRN Endocrinology* 2012:627270.

16. Cerf ME, et al. 2011. Maternal gestational dietary fat has minimal effects on plasma lipid profiles and hepatic glucose transporter 2 and no effect on glucokinase expression in neonatal Wistar rat offspring. *International Journal of Biomedical Science* 7:207-217.

17. Cerf ME 2011. Islet organogenesis, angiogenesis and innervation. *Cell Biology International* 35:1065-1078.

18. Cerf ME. 2011. Parental high fat programming of offspring development, health and beta cells. *Islets* 3:118-120.

19. Cerf ME, et al. 2010. Gestational 30% and 40% fat diets increase brain GLUT2 and neuropeptide Y immunoreactivity in neonatal Wistar rats. *International Journal of Developmental Neuroscience* 28:625-630.

20. Cerf ME. 2010. High fat programming of beta-cell failure. *Advances in Experimental Medicine and Biology* 654:77-89.

21. Cerf ME, Louw J. 2010. High fat programming induces glucose intolerance in weanling Wistar rats. *Hormone and Metabolic Research* 42:307-310.

22. Cerf ME, et al. 2009. Gestational high fat programming impairs insulin release and reduces Pdx-1 and glucokinase immunoreactivity in neonatal Wistar rats. *Metabolism* 58:1787-1792.

23. Cerf ME, et al. 2007. Compromised beta-cell development and beta-cell dysfunction in weanling offspring from dams maintained on a high fat diet during gestation. *Pancreas* 34:347-353.

24. Cerf ME. 2007. High fat diet modulation of glucose sensing in the beta-cell. *Medical Science Monitor* 13:RA12-RA17.

25. Cerf ME. 2006. Pdx-1 regulation of beta-cell function. *Specialist Forum* 6:72-74.

26. Cerf ME. 2006. Transcription factors regulating beta-cell function. *European Journal of Endocrinology* 155:671-679.

27. Cerf ME, et al. 2006. Hyperglycemia and reduced glucokinase expression in weanling offspring from dams maintained on a high fat diet. *British Journal of Nutrition* 95:391-396.

28. Cerf ME, et al. 2005. Islet cell response in the neonatal rat after exposure to a high fat diet during pregnancy. *American Journal of Physiology-Regulatory Integrative and Comparative Physiology* 288:R1122-R1128.

29. Cerf ME, et al. 2005. The role of a high fat diet in the pathogenesis of Type 2 diabetes. *Specialist Forum* 5:11-16.

30. Cerf ME, et al. 2005. Transcription factors, pancreatic development and beta-cell maintenance. *Biochemical and Biophysical Research Communications* 326:699-702.

31. Cerf ME, et al. 2004. High fat diet, transcription factors, and glucose sensing in the developing pancreas. *Specialist Forum* 4:20-24.

32. Cerf ME, Raidoo DM. 2000. Immunolocalization of plasma kallikrein in human brain. *Metabolic Brain Disease* 15:315-23.

33. Cerf M, et al. 1999. Plasma kallikrein localisation in human blood vessels. *Immunopharmacology* 44:75-80.