

# CURRICULUM VITAE: MARYNA VAN DE VENTER

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## 1 PERSONAL INFORMATION

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SURNAME: van de Venter (maiden name: van Heerden)

FIRST NAME: Maryna

CITIZENSHIP: South African

## 2 ACADEMIC BACKGROUND AND EXPERIENCE

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### 2.1 **ACADEMIC QUALIFICATIONS**

BSc (Biochemistry, Zoology): University of Port Elizabeth, 1984

BSc (Hons) in Biochemistry: University of Port Elizabeth, 1985

MSc in Biochemistry: University of Port Elizabeth, 1988

PhD in Biochemistry: University of Port Elizabeth, 1993

Certificates in Horticultural Practices (1994, *cum laude*) and Plant- and Pest Control (1995, *cum laude*) from Technikon SA.

### 2.2 **CAREER OVERVIEW**

#### 2.2.1 **Previous employment:**

1984-1990: Part time research assistant, University of Port Elizabeth.

1988-1992: Contract lecturer, Sharley Cribb Nurses College, Port Elizabeth (Biochemistry).

1991-1995: Contract lecturer, University of Port Elizabeth (Biochemistry).

1996-1999: Career break to raise family (some part-time lecturing and PhD supervision at UPE).

#### 2.2.2 **Current employment (since 2000):**

Department of Biochemistry and Microbiology, Nelson Mandela University, PO Box 77 000, Port Elizabeth 6031.

- Lecturer and Senior Lecturer (2000 - 2009).
- Associate Professor in Biochemistry (2010 – 2020).
- Professor of Biochemistry since January 2021.

## 2.3 COURSES PRESENTED TO DATE:

### 2.3.1 Service courses:

- Biology for Teachers (Faculty of Education)
- Biochemistry for Nursing Students (Faculty of Health Sciences)
- Physiology: digestion, metabolism for nursing students (Faculty of Health Sciences)
- Biochemistry for Pharmacists (Faculty of Health Sciences)

### 2.3.2 BSc modules:

- Biomolecules (2<sup>nd</sup> year biochemistry)
- Metabolism (2<sup>nd</sup> year biochemistry)
- Lipids and Lipid Metabolism (2<sup>nd</sup> year biochemistry)
- Plant Biochemistry (3<sup>rd</sup> year)
- Cellular Biochemistry (3<sup>rd</sup> year)

### 2.3.3 Honours modules:

- Cell Biology
- Radiochemistry
- Cell culture and the safe use of radio-isotopes (Honours practical)
- Medical Biochemistry (Elective module)
- Biotechnology (Elective module)
- Physical Biochemistry (Elective module)
- Honours research project

## 3 RESEARCH AND ENGAGEMENT PROFILE

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### 3.1 RESEARCH INTERESTS

As a cellular biochemist, my research focus is on the *in vitro* evaluation of chemical compounds (synthetic or natural) and extracts from plants, macrofungi and algae for therapeutic potential and safety. The therapeutic areas that I focus on are mainly diabetes and cancer, with inflammation that overlaps into these areas. Most of the methods are cell-based and involves the detection of signal transduction intermediates to measure cellular responses to the treatments to elucidate their molecular mechanisms of action. In response to multiple requests for assistance in testing samples for other researchers, I have initiated an *in vitro* screening and training service to fill this gap. See [www.bioassaix.com](http://www.bioassaix.com) for more information. A new addition to my research interests is the development and validation of *in vivo* disease models using zebrafish larvae, which will extend our drug testing capabilities from exclusively *in vitro* to a first level *in vivo* testing.

## 3.2 RESEARCH OUTPUTS, CITATION AND RATING SUMMARY

ITEM	DESCRIPTION	NUMBER
<b>Peer-reviewed papers</b>	In WoS (ISI) or Scopus listed journals:	103
<b>Conference presentations</b>	International	>40
	National	>50
<b>Book chapters</b>	Invited	1
<b>Student supervision</b>	MSc completed	26
	MSc registered	4
	PhD completed	21
	PhD registered	6
<b>Post-doctoral fellows hosted</b>	Completed	6
	Current	2
<b>Researcher metrics</b>	National Research Foundation Rating	C2
	Scopus h-index	26
	Google Scholar h-index	35
	i10 Index (Google Scholar)	65

## 3.3 REVIEWING AND EDITORIAL BOARD MEMBERSHIP AND SOCIETIES

3.3.1 **External examiner** for Master's and Doctoral students from 16 South African universities.

3.3.2 **Reviewer** for > 25 international journals.

### 3.3.3 **Membership of editorial and review boards:**

- Member of the editorial board of *Evidence Based Complementary and Alternative Medicine* 2013-2015.
- Review Editor for *Frontiers in Pharmacology* and *Frontiers in Oncology* (2015 – current).
- Reviewer of grant proposals for Health and Medical Research Fund (HMRF), Hong Kong, China annually since 2010.
- Regular reviewer and panel member for National Research Foundation (NRF – rating applications, National Equipment Program and grant proposals in different calls) and Medical Research Council (SAMRC).
- Reviewer of grant proposals for Cape Peninsula University of Technology (2020, 2022).

3.3.4 **Member** of International Society for Ethnopharmacology (ICE).

3.3.5 **Manage** the *In vitro* bioactivity screening platform **BioAssaix Screening Services**, providing a screening and training facility for researchers, postgraduate students and SMMEs.

## 3.4 RESEARCH FUNDING

Secured > R22 Million from external sources in the past 20 years.