

# *Curriculum vitae of Dr. Vuyiswa Sylvia Bushula-Njah*

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Languages: English, Xhosa, Afrikaans, Zulu, and Sotho

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## ***Education***

- 2017**      **Doctor of Philosophy (Plant Pathology), Kansas State University, Manhattan, KS, USA.**  
Doctoral dissertation: Genetic diversity and pathogenicity of sorghum-associated *Fusarium* species.  
Advisor: Associate Prof. Christopher Little
- 2008**      **MSc (Microbiology), Stellenbosch University, South Africa**  
Thesis: Native *Fusarium* species from indigenous Fynbos soils of the Western Cape.  
Advisor: Prof. Karen Jacobs
- 2005**      **Honours (Microbiology), Stellenbosch University, South Africa**  
Advisor: Prof. M. Bloom
- 2004**      **BSc (Cellular and Molecular Biology), Stellenbosch University, South Africa**

## ***Research interests***

Genomics, population genetics, species evolution, life cycle definitions, and pathogenicity of mutually interesting *Fusarium* species.

## ***Research experience***

- Sept 2016-Present**      **Post-doctoral research fellow, Forestry & Agricultural Biotechnology Institute, University of Pretoria, South Africa**
- 2009-June 2016**      **Graduate Research Assistant (GRA), Department of Plant Pathology, Kansas State University, KS, USA**

- 2009** Intern, Medical Research Council, PROMEC Unit, Tygerberg, South Africa
- 2004-2008** Laboratory demonstrator/Instructor, Department of Microbiology, Stellenbosch University, South Africa
- 2003-2004** Student worker, Department of Microbiology, Stellenbosch University, South Africa

### ***Additional Research-related experiences***

- 2016** Advanced Phylogenetics Workshop, University of Pretoria, South Africa  
*Attended workshop for updated discussions on application of phylogenetic*
- 2011** International Fusarium workshop, Kansas State University, USA  
*Attended workshop for updated discussions on Fusarium related topics*
- 2008** 6<sup>th</sup> Pan African Environmental Mutagen Society Conference (PAEMS), CTICC, Cape Town, South Africa. *Attended a Scientific writing satellite course 1*

### ***Publications***

G. Coetzee, I. J. Marx, M. Pengilly, V. S. Bushula, E. Joubert and M. Bloom (2008). Effect of Rooibos and Honeybush tea extracts against *Botrytis cinerea*. *S. Afr. J. Enol. Vitic.* **29**: 33-38.

D. J. Jardine and V. S. Bushula (2011). Corn rust identification and management in Kansas. Kansas State University Agricultural Experiment Station and Cooperative Extension Services. MF3016.

### ***Manuscripts in preparation***

V. S. Bushula, J. F. Leslie, J. Whitehair, and C. R. Little (*Manuscript in preparation*). Genetic structure and pathogenicity of *Fusarium thapsinum* population from Kansas sorghum.

V. S. Bushula, J. F. Leslie, J. Whitehair, and C. R. Little (*Manuscript in preparation*). *Fusarium thapsinum* from Kansas sorghum has genetic ties to an African population.

### ***Participation in Scientific meetings***

Bushula, V. S., Leslie, J. F., and Little, C. R. "Genetic diversity in *Fusarium andiyazi* populations from sorghum." (Sorghum Improvement Conference of North America, Manhattan, Kansas, USA; September 1-3, 2015) (*Contributed Oral presentation*)

**Bushula, V. S.,** Leslie, J. F., and Little, C. R. “Genetic diversity in *Fusarium andiyazi* populations from sorghum.” (American Phytopathological Society Meeting, Pasadena, California, USA; August 1-5, 2015) (*Contributed Poster presentation*)

**Bushula, V. S.,** Leslie, J. F., and Little, C. R. “*Fusarium thapsinum* from Kansas sorghum has genetic ties to an African population.” (American Phytopathological Society/North Central Division Meeting, Madison, Wisconsin; June 11-13, 2014) (*Contributed Poster presentation*)

**Bushula, V. S.** “Population structure and pathogenicity of *Fusarium thapsinum* from Kansas sorghum.” (Center for Sorghum Improvement, Kansas State University, Manhattan, Kansas; September 16, 2013) (*Seminar presentation*)

**Bushula, V. S.,** Leslie, J. F., and Little, C. R. "Genetic diversity and pathogenicity of *Fusarium thapsinum* isolates from sorghum." (Sorghum Improvement Conference of North America/Great Plains Sorghum, Manhattan, Kansas; August 28-30, 2012) (*Contributed Oral presentation*)

**Bushula, V. S.,** Leslie, J. F., Little C. R., Toomajian, C., and Tesso, T. “Genetic diversity in *Fusarium thapsinum* isolates from Kansas.” (9<sup>th</sup> Capitol Graduate Research Summit (CGRS), Topeka, Kansas; February 16, 2012) (*Contributed Poster presentation*)

**Bushula, V. S.,** Leslie, J. F., Little C. R., Toomajian, C., and Tesso, T. “Genetic diversity in *Fusarium thapsinum* isolates from Kansas.” (Research and the State Conference, Manhattan, Kansas; August 31, 2011) (*Contributed Poster presentation*)

**Bushula, V. S.,** van Zyl, W. H., and Jacobs, K. “Partial endoxylanase gene as a molecular marker for phylogenetic analysis and identification of *Fusarium* species.” (46<sup>th</sup> Congress of the Southern African Society of Plant Pathology, Gordon’s Bay, South Africa; 25-28 January 2009; Book of Abstracts, page 61) (*Contributed oral presentation*)

**Bushula, V. S.,** van Zyl, W. H., Marasas, W. F. O., and Jacobs, K. “A new species of *Fusarium* from fynbos soils of the Western Cape Province, South Africa.” (46<sup>th</sup> Congress of the Southern African Society of Plant Pathology, Gordon’s Bay, South Africa; 25-28 January 2009; Book of Abstracts, page 117) (*Contributed Poster presentation*)

**Bushula, V. S.** and Jacobs, K. “Native *Fusarium* species from indigenous fynbos soil.” (BIO-08: SASM–BIOTECH SA–SASBMB, Grahamstown, South Africa; 21-25 January 2008; Book of Abstracts, page 45) (*Contributed oral presentation*)

## ***Teaching experience***

### **Teaching assistant:**

- *Lecturing lab practical material* for Principles of Plant Pathology course (Plant Pathology Department, Kansas State University, USA) ( Spring 2010)
- *Language consultant* for Linguistic Field Methods course (Linguistic Anthropology Department, Kansas State University, USA) (Spring 2010)

- *Tutoring Biology 1<sup>st</sup> year students* (Zoology & Botany Department, Stellenbosch University, South Africa) (2008-2009)
- *Demonstrating laboratory practical material for Microbiology 2<sup>nd</sup> year students* (Microbiology Department, Stellenbosch University, South Africa) (2004-2009)

### **Mentoring:**

- *Mentoring junior scientists* in Row Crops Pathology Lab, Kansas State University (2012-2016)

### ***Leadership positions***

**2009-2010**                      **President** of the Plant Pathology Graduate Student Club (KSU);  
**Vice-president** of African Student Union (ASU) (KSU)

**2008-2009**                      **Primaria/Head student** of Huis MacDonald Residence;  
**Prim Komitee/Head students Committee** of Stellenbosch University Residences

### ***Awards and scholarships***

- 1<sup>st</sup> prize for oral presentation by a graduate student at the Sorghum Improvement Conference of North America (SICNA) (\$500), September 2015
- Kansas State University Graduate Student Council Travel Grant (\$500), Summer 2015
- Student Opportunity Awards: K-State Proud (\$1, 000), 2013/2014
- 1<sup>st</sup> prize for oral presentation by a graduate student at the Sorghum Improvement Conference of North America (SICNA) (\$500), August 2012
- International Coordinating Council Coffee Hour Presenter Award (\$100), February 2012
- National Research Foundation (NRF) Prestige & Equity scholarship for MSc degree (Dept. of Microbiology, Stellenbosch University, South Africa), 2006-2007
- NRF/Department of Labour Scarce Skills scholarship for Honours degree (Dept. of Microbiology, Stellenbosch University, South Africa), 2005

### ***Professional memberships***

- The South African Society of Microbiology (SASM)
- The South African Society of Plant Pathology (SASPP)

- American Phytopathological Society (APS)
- American Phytopathological Society (APS)/ North Central Division
- Golden Key Honorary Society

## *References*

Dr. Christopher R. Little (Major advisor for PhD)  
Associate Professor: Department of Plant Pathology  
4723 Throckmorton Plant Sciences Center,  
Kansas State University, Manhattan, KS 66506-5502  
+1-785- 532-1395  
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Dr. Tesfaye Tesso (Sorghum Breeder & committee member for PhD)  
Professor: Department of Agronomy  
3007 Throckmorton Plant Sciences Center,  
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