Curriculum Vitae

KIRSTI SNYDERS



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| Kirsti Snyders | |
| Date of Birth: | 13 March 1989 |
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| Gender: | Female |
| Language Proficiency: | English and Afrikaans |

SUMMARY OF QUALIFICATIONS

* Senior Certificate (Grade 12) 2007
* Degree in Microbiology at the University of Pretoria (2010)
* Completed a honours degree in Microbiology and Plant Pathology at the University of Pretoria (2011)
* Currently busy with the first year of my masters degree (Virology) degree in Microbiology and Plant Pathology at the University of Pretoria (2012)

Other

* Certificate in Laboratory technique/management Course at the University of Pretoria (2010)
* Certificate in Laboratory Safety and Chemical Health Hazards at the University of Pretoria (2011)
* Qualified in Bio-Safety Level 3 experimental work. Qualification was obtained at the National Health Laboratory Services (NHLS), National Institute of Communicable Diseases (NICD) (2013).

EMPLOYMENT

**2007**

NAME OF COMPANY : Pillow Talk - Interiors  
POSITION HELD : Part-time shop assistant  
PERIOD OF EMPLOYMENT : From: January 2007 To: February 2008  
REASON FOR LEAVING : Focussed on my studies  
CONTACT REFERENCE : Me. Franine Duminy  
CONTACT TEL : 082 905 6138  
JOB DISCRIPTION : Salesperson and product ordering.

**2011**

NAME OF COMPANY : University of Pretoria  
POSITION HELD : Food safety research assistant  
PERIOD OF EMPLOYMENT : From: September 2011 To: December 2011   
REASON FOR LEAVING : MSc studies  
CONTACT REFERENCE : Prof. Lize Korsten  
CONTACT TEL : 079 522 8476  
JOB DISCRIPTION : Food safety research assistant

“Bufland boerdery” research project and “Kareebosch – Sandrivier” research project (2011)

**2013**

NAME OF COMPANY : University of Pretoria  
POSITION HELD : [Bookkeeper and sales (Departmental Social Club)](http://www.linkedin.com/search?search=&title=Bookkeeper+and+sales+%28Departmental+Social+Club%29&sortCriteria=R&keepFacets=true&currentTitle=CP&trk=prof-exp-title)  
PERIOD OF EMPLOYMENT : From: May 2013 To: Present 2013  
REASON FOR LEAVING : Focussed on writing up my MSc studies  
CONTACT REFERENCE : Prof Gerhard Pietersen   
CONTACT TEL : 082 647 5326  
JOB DISCRIPTION : Bookkeeping and sales

The department (Department of Microbiology and Plant Pathology) where I am currently finishing my studies has started a social club (tea club) for all their colleagues in the department.  
I have volunteered to assist in the bookkeeping of all the usages within the club as well as sales.

EDUCATION

High School:

Student representative

2007 - Matriculated from Hoërskool Menlopark (Pretoria)

Academics:

Matric Subjects

* HG - Mathematics
* HG - Science
* HG - Geography
* HG - Technical Drawings
* Afrikaans - First Language
* English - Second Language

Sport:

Hockey

* Gauteng North – Provincial colours
* First team hockey (for 2 years)
* Played club hockey

Tertiary Education:

2008 – 2010: Completed a degree in Microbiology at the University of Pretoria.

2011: Completed a honours degree in Microbiology and Plant Pathology at the University of Pretoria.

My honours project is part of a research project which stretches over 7 years. The project started 2009-04-01 and the aim is to end 2015-03-31. The research title is “An Investigation into the link between water quality and microbiological safety of fruit and vegetables from the farming to the processing stages of production and marketing.”

My project focuses mainly on food safety. The title of the project is “The impact of microbiological contaminated irrigation water on Parsley safety and quality.” The project stretches over a year, which involved field trips for sample collections – water and Parsley – the processing of the samples and data analysis.

An abstract of my project will follow:

Water is life! It is available in many different sources, varying from rivers to industrial waste water. Microbes identified in contaminated agricultural water included pathogens such as *Escherichia coli 0157:H7, Listeria monocytogenes, Salmonella enterica* subsp. *enterica* serovar *Typhimurium, Giardia lamblia,* norovirus and Hepatitus A. The link between these microbes, water and plants such as Parsley becomes important in extended supply chains. Parsley is a leafy, green herb which is known to be used in the food industry. The aim of this study is to determine if these microbes will have a negative impact on the parsley quality and safety at the supply end of the food chain. Irrigation water used on the farm and processing of the herb will be tested for the presence/absence of clinical waterborne pathogens. Several diagnostic methods such as Polymerase Chain Reactions (PCR) and the Matrix Assisted Laser Ionisation – Time of Flight (Maldi-tof), will be used to quantitatively and qualitatively determine the presence of pathogens. In addition, the micro-flora found on parsley will be determined, to understand their properties linked to this herb and to see what their effect will be.

2011 till present: Tutorial and practical demonstrator for a first year Microbiology subject – “Introduction to Microbiology” at the University of Pretoria.

2012: Currently busy with the first year of my Masters degree (Virology) in Microbiology and Plant Pathology at the University of Pretoria.

My current (MSc) research, “Isolation of Citrus Tristeza Virus genotypes using single aphid transmissions, and next-generation sequencing.” is focusing on the detection of single Citrus Tristeza Virus genotypes, which will aid in future cross-protection scheme development as well as improving currently used protection schemes.

An abstract of my project will follow:

*Citrus tristeza virus* (CTV) is one of the most devastating viruses to citrus producers worldwide. Infecting nearly all citrus species and cultivars, various citrus relatives and some intergeneric hybrids, it is clear that CTV is capable of economically devastating the citrus exporting trade. Therefore, CTV cross-protection programs are significant, aiding in crop protection, reducing yield losses in areas where CTV is endemic. Identification and isolation of single genotypes and the evaluation of their symptom severity is critical for future cross-protection studies against CTV as mixtures of genotypes will yield misleading biological properties, such as symptom severity. The aim of this study is to obtain single genotype isolates of CTV by screening for CTV presence in citrus samples from the field on which aphid colonies are observed. Single aphid transmissions will be performed using the natural infestations, followed after a six month interval by the identification and the confirmation of pure CTV genotypes from successful SAT CTV infected recipient plants. Evaluation of symptom severity will be used to determine if the isolated and identified genotypes can be utilised in future cross-protection applications. Initial field grown citrus trees will be screened for CTV presence using a RT-PCR analysis, targeting genotype specific primers (11 primer sets). All SAT recipient plants will be tested for CTV presence after six months by TAS-ELISA. CTV positive SAT plants will be subjected to screening with genotype primers and those that appear to be single genotype isolates will be subjected to random dodecamer primed RT-PCR or overlapping universal CTV primers and submitted for next-generation sequencing (NGS) allowing the detection, characterization and proof of homogeneity of single CTV genotypes. Symptom severity evaluation will be done, using the identified pure genotypes, on a variety of citrus cultivars under greenhouse conditions. Therefore, any analyses showing a positive CTV presence signify that a single aphid is capable for transmitting CTV from a field location to healthy Mexican lime seedlings/plantlets, under greenhouse conditions. Furthermore, any CTV presence on the collected field samples will show CTV existence within the chosen research location. Newly identified genotypes, phylogenetically linked with the known CTV genotypes and strains, will give us an indication of the strain diversity among the new and old CTV strains/genotypes present till now. All the identified genotypes in this study, together with the known genotype (T36), will be included into future CTV cross-protection studies. Therefore, we can conclude that any positive CTV results obtained from this study will aid in improving our understanding of CTV and the effect this disease has on citrus producers worldwide.

My MSc project has been presented at the Forestry and Agricultural Biotechnology Institute (FABI), situated at the University of Pretoria (2013).

2013: Attended the 19th International Organization of Citrus Virologists (IOCV) conference held in the Kruger National Park, South Africa.

2013 till present: Part of the Forestry and Agricultural Biotechnology Institute (FABI) for my MSc studies. Involved in the FABI social club.

Computer Literacy:

* Microsoft Office Word
* Microsoft Office Excel
* Microsoft Office PowerPoint
* CLC Main workbench

HOBBIES

* Jogging – Any activity which involves adrenalin
* Shopping

CAREER OBJECTIVE

I am seeking a good position in a food and human safety/scientific research field, in which I can:

* Assist in improving food quality and safety
* Determine the implications of food safety on human health
* Knowledge contribution
* Improve my skills within the working environment
* Broaden my knowledge in any way possible – workshops, seminars, etc.

I approach each challenge with enthusiasm and have great work ethics. I possess a creative mind where I can analyse problems and find the best solution for the situation. I am well-organized and hard working person. I also possess a great personality and maintain a professional and friendly relationship with my fellow colleagues.

I believe a positive outlook on life will reflect the person who you are.