Mandy Messal

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PERSONAL SKILLS AND COMPETENCES

Mother Tongue	German
Other Languages	English: C1 Proficient User: Effective Operational Proficiency/ advanced
	French: A2 Basic User: Way stage/ elementary
	[Common European Framework of Reference for Languages]
Driving License	Full license European category BE (car and trailer)
Computer Skills	MS Office, sequence analysis software (MEGA5, DNASTAR), qPCR software (CFX Manager Software BioRad), image analysis system (WinFOLIA-morphological measurements on leaves), Citation program (Endnote library, Zotero), Linux command line (intermediate), R (beginner)

EDUCATION AND TRAINING

2015- current: **Doctor of Philosophy**: Forestry and Agricultural Biotechnology Institute (FABI), Department of Biotechnology, Microbiology and Genetics (BMG), University of Pretoria (UP), South Africa;

<u>Thesis</u>: "Towards a mechanistic understanding on fungal community interactions in *Eucalyptus* using ecological genomics "

Supervisors: Prof Bernard Slippers (UP), Prof Sanushka Naidoo (UP), Dr Martin Kemler (Ruhr-University Bochum, Germany).

2011- 2013: Master of Science: Biology at Technical University of Braunschweig, Germany, principal subjects: infection biology and microbiology
<u>Thesis</u>: "Validation of the visual assessment of *Heterobasidion annosum* s.l. and *Phlebiopsis gigantea* colonization of *Picea abies* stumps by real-time PCR "
This work was carried out at the Department of Forest Mycology and Plant Pathology, Swedish University of Agricultural Sciences Uppsala (SLU), Sweden;
Supervisors: Jonàs Oliva (SLU), Malin Elfstrand (SLU), Jan Stenlid (SLU).

2008-2011: **Bachelor of Science**: Biology at Technical University of Braunschweig, Germany

<u>Thesis</u>: *Chalara fraxinea*-Vergleichende Modellsysteme zur Untersuchung der Virulenz (engl. translation: "*Chalara fraxinea*- Comparative model systems to study the virulence") This work was carried out at the AG Steinert Department of Microbiology, Technical University of Braunschweig (TU BS), Germany; Supervisors: Barbara Schulz (TU BS), Michael Steinert (TU BS).

WORK AND TEACHING EXPERIENCE

March 2020 - current: **Study Skills Coach**; Coachbit, Inc., 251 Little Falls Drive, Wilmington, DE, 19808, USA.

January 2020 - current: **Tutor**; Life Sciences (School, Grade 12), Microbiology/Genetics (University), German (Language); Teach Me 2 (Pty) Ltd., 6 Thicket Street, Newlands, Cape Town, South Africa, 7700.

September 2014- November 2014: **Research Technician;** Department of Forest Protection; Scion Research Institute, Rotorua, New Zealand;

<u>Project</u>: Healthy Trees Healthy Future; Responsible for culturing, zoospore production, needle infection, method developing and field assessment. Main study object: *Phytophthora pluvialis* and *Pinus radiata*. Supervisors: Dr Beccy Ganley, Dr Nari Williams.

October - December 2013: **Research Assistance**; Department of Forest Mycology and Plant Pathology; Swedish University of Agricultural Sciences; Uppsala, Sweden; <u>Project:</u> Extracted fungal DNA from environmental spruce samples and analysed with realtime quantitative PCR, including fieldwork. Main study object: *Heterobasidion annosum* and *Picea abies*. Supervisor: Dr Jonàs Oliva.

June 2010 - October 2012: **Student Assistance**; AG Arnold Institute for Biochemistry, Biotechnology and Bioinformatics, Department of Cell- and Molecular Biology, Technical University of Braunschweig, Germany;

<u>Responsibilities</u>: Took care of animals (mice) for research.

2011-2012: **Student Assistance**; AG Steinert Department of Microbiology, Technical University of Braunschweig, Germany;

<u>Responsibilities:</u> Assisted with practical courses 'Microbiology for Beginners' and 'Mycology&Phycology'. Assisted with teaching basic culturing and microscopy skills to 20 bachelor students.

SCHOLARSHIPS

2013 **Working Scholarship**: two month funding to process and analyse samples after finishing my Master's thesis; granted by Department of Forest Mycology and Plant Pathology, Swedish University of Agricultural Sciences, Uppsala Sweden 2013 **Erasmus Placement**: six month funding for studying abroad granted by the European Community Action Scheme for the Mobility of University Students (ERASMUS) within the European Union

2013 **Mobility Scholarship of the Discipline Biology**: one time funding for studying abroad granted by Department of Life Sciences, Technical University of Braunschweig

REFEREES

Prof Bernard Slippers, Forestry and Agricultural Biotechnology Institute, Department of Biotechnology, Microbiology and Genetics, University of Pretoria, South Africa; Bernard.slippers@fabi.up.ac.za

Assistant Professor Jonàs Oliva, Department of Forest Mycology and Plant Pathology, Swedish University of Agricultural Sciences. Jonas.oliva@slu.se

PD Dr. Barbara Schulz, Department of Microbiology, Technical University of Braunschweig, Germany. B.schulz@tu-bs.de

Dr. Beccy Ganley, Research Leader Forest Protection, Scion Research Institute, New Zealand. Rebecca.Ganley@scionresearch.com