# PRELIMINARY PROGRAMME



**30th ANNUAL MEETING OF THE**

**TREE PROTECTION CO-OPERATIVE PROGRAMME (TPCP) AND THE**

**DST-NRF CENTRE OF EXCELLENCE**

**IN TREE HEALTH BIOTECHNOLOGY (CTHB)**

**MONDAY 13 to WEDNESDAY 15 MAY 2019**

# FUTURE AFRICA CAMPUS – UNIVERSITY OF PRETORIA

**MONDAY 13 MAY 2019**

*(Unless otherwise indicated, all activities on Monday take place at the Future Africa Campus, University of Pretoria)*

**08:00-08:30 REGISTRATION, COFFEE AND TEA (In front of the Future Africa Auditorium)**

08:30-08:45 Welcome. **Prof. Emma Steenkamp & Prof. Bernard Slippers**

09:00-09:30 Keynote address. **Prof .Diana Six, University of Montana, USA.**

09:30-09:45 Unraveling the biology of *Teratosphaeria* leaf and stem pathogens with genome data. **Dr Janneke Aylward, FABI.**

09:45-10:00 Environmental influences on fungal communities associated with native and cultivated olives. **Nombuso Ngubane, University of Stellenbosch.**

10:00-10:15 *Botryosphaeriaceae* on symptomatic and asymptomatic branches of *Berchemia discolour*. **Cindy Ramokgano, University of Venda.**

10:15-10:30 *Phytophthora multivora:* local driver of plant diversity and global agent of bio-insecurity. **Joey Hulbert, FABI.**

10:30-10:45 *Teratosphaeria destructans*: genomes, mating types and global populations. What do we know thus far? **Minette Havenga, FABI**

**10:45-11:15 COFFEE & TEA**

11:15-11:30 Fungal diversity associated with roots of the South African orchid, *Habenaria barbertonii*. **Modjadji Makwela, FABI.**

11:30-11:45 The unique rhizobia of South Africa: as exemplified by the description of *Bradyrhizobium* *leobordeae* sp. nov. **Chrizelle Beukes, FABI.**

11:45-12:00 Diversity of fungi associated with branch dieback of *Ziziphus mucronata* in Limpopo Province. **Polly Thaphathi, University of Venda.**

12:00-12:15 Rhizosphere-plant-microbe interactions during P deficiency in the tree legume *Virgilia*. **Darryn Whisgary, University of Stellenbosch**

12:15-12:30 Characterisation of Lepidoptera associated with Macadamia nut damage in South Africa. **Ashleigh Smith, FABI.**

**13:00-14:00 LUNCH**

**14:00-15:00 Closed Meeting of the CTHB Core Team Members from the US and UV, and Core Team Members from FABI (Future Africa)**

**14:00-16:00 Personal and Professional Development Activity (Future Africa)**

**16:00-18:00 Closed meeting of the CTHB Steering Committee (FABI Boardroom)**

**18:30-21:00 DINNER (Braai/barbeque at the Future Africa Campus, for all members of the CTHB Steering Committee, visitors to FABI, CTHB Core Team Members, students and chaperones)**

**TUESDAY 14 MAY 2019**

*(All activities on Tuesday take place at the Future Africa Campus, University of Pretoria)*

**08:00-08:30 REGISTRATION, COFFEE AND TEA**

**Session 1: Reflecting on the power of Industry-University-Government partnerships.**

08:30-08:40 Welcome. **Prof. Bernard Slippers.**

08:40-09:00 Valuing Industry-University-Government partnerships for the development of South Africa. **Prof. Stephanie Burton, Vice-Principal: Research and Postgraduate Education, University of Pretoria.**

09:00-09:20 Government-Industry-University relations and the development of forestry in South Africa. **Representative from the Department of Agriculture, Forestry and Fisheries.**

09:20-09:40 Reflections on both the historical and future role of the TPCP to the forestry industry in South Africa. **Mike Edwards & Michael Peter, Forestry South Africa.**

09:40-10:05 Reflections on the building of a world-leading Industry-University partnership. **Prof. Mike Wingfield.**

10:05-10:30 Keeping trees healthy: Celebrating 30 years of research excellence and leadership. **Prof. Bernard Slippers and the TPCP/CTHB research team.**

## 10:30-11:00 GROUP PHOTO

**11:00-11:30 COFFEE AND TEA**

**Session 2: From basic research to application: 30 years of impact**

11:30-11:45 Developing the smartest corner in Africa: Programs and partnerships for innovation through the UP experimental farm. **Dr Osmond Mlonyeni, Manager: Future Africa.**

11:45-12:05 Old and emerging *Eucalyptus* stem pathogens and the development of the TPCP. **Dr. Irene Barnes.**

12:05-12:25 *Sirex* research in the TPCP: Global leadership and local impact. **Prof. Brett Hurley.**

12:25-12:45 *Fusarium* research: From the basic to the applied. **Prof. Emma Steenkamp.**

12:45-13:00 The value of the CT(P)HB to FABI and the future of the TPCP. **Prof. Brenda Wingfield.**

## 13:00-14:00 LUNCH, Future Africa dining hall

**Session 3: Knowledge-based technical services for tree health**

14:00-14:20 Insect rearing, biological control andforest pest management*.* **John Dedes, Canadian Forest Service, Canada.**

14:20-14:45 TPCP serving the industry: Extension, diagnostics, monitoring and biological control. **Darryl Herron, Samantha Bush, Sandisiwe Jali, Dr Trudy Paap.**

14:45-15:00 The dual purpose of disease screening for research and management. **Dr. Almuth Hammerbacher**.

15:00-15:30 **Speed talks:**

 Genetics and ecology of insect pest invasions: The *Sirex* example. **Josephine Queffelec.**

 Recurring *Fusarium* outbreaks: What have we learned over the last year? **Dr** **Felix Fru.**

 Understanding variation in *Fusarium* virulence. **Benedicta Swalarsk-Parry.**

 Diversity and distribution of *Eucalyptus* insect pests in Africa. **Dr Mesfin Gossa.**

**15:30-16:00 COFFEE AND TEA**

**Session 4: New technologies and partnerships for the future of tree health management**

16:00-16:15 GIS and forest health research: Growing an industry-ICFR-TPCP map. **Dr Illaria Germishuizen, ICFR and Prof. Brett Hurley.**

16:15-16:30 TPCP-FMG linkages and GMO trees. **Prof. Sanushka Naidoo.**

16:30-16:45 The future of ‘omics’ in the TPCP: endless possibilities for tree health research. **Dr Tuan Duong.**

16:45-17:00 CRISPR and the opportunities for pest management. **Dr Gudrun Dittrich-Schröder.**

17:00-17:30 Discussion and closing

**18:00 ANNUAL TPCP DINNER CELEBRATION at Future Africa**

**WEDNESDAY 15 May 2019**

## *(All activities on Tuesday take place at the Future Africa Campus, University of Pretoria)*

## 08:00-08:30 COFFEE AND TEA

**Session 5: New tools for monitoring and management of pests and pathogens**

08:30-08:45 Review and discussion. **Prof. Bernard Slippers.**

08:45-09:05 Drones and AI for pathogen monitoring and management. **Dr** **Rene Heim, University of Florida, USA.**

09:05-09:25 Student and Postdoc speed talks

 Understanding the biology of *Teratosphaeria destructans*. **Dr Janneke Aylward.**

 Exploring the susceptibility of white grubs to entomopathogenic nematodes. **Agil Katumanyane.**

 Microbiomes and tree health. **Mandy Messal**

09:25-09:40 Applied chemical ecology at FABI. **Dr Marc Bouwer.**

09:40-09:55 The SAPPI-TPCP partnership to manage the Cossid moth. **Kayla Noeth, Sappi.**

09:55-10:10 Biological control of *Gonipterus* sp.2. **Dr Michelle Schröder.**

10:10-10:30 Developing a national forest biosecurity surveillance strategy: An Australian example. **Dr**

 **Simon Lawson, University of the Sunshine Coast.**

## 10:30-11:00 COFFEE AND TEA

**Session 6: Understanding and managing emerging tree health problems**

11:00-11:15 Replanting syndrome in forestry: What is the evidence? **Dr.** **Tanay Bose.**

11:15-11:30 The potential threat of the PSHB to trees and forestry in South Africa. **Prof. Wilhelm de Beer.**

11:30-11:45 Tracking the movement of pathogens: from the local to the global. **Prof. Martin Coetzee.**

11:45-12:00 Myrtle rust: dealing with an international invasive pest disaster. **Ginna Granados**.

12:00-12:30 **GENERAL DISCUSSION AND CLOSURE**

## 12:45 FINGER LUNCH and meeting of the Board of the TPCP.

## 12:45 Satellite meetings and research discussions.

## 14:00-16:00 Tour of the FABI Biocontrol Facilities and Nursery on the UP Experimental Farm (for visitors who indicated that they wish to go)