

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 will 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 discolor*. **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.**

12:30-13:00 GROUP PHOTO

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 (Future Africa 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 will 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. **Sebueng Chipeta, Acting Deputy Director: Forestry and Natural Resources Management, 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 and forest 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 **Student and Postdoc speed talks:**

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

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

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

The maternal environment matters: Effects on development, resistance and physiology. **Dr Maria Vivas.**

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 The potential threat of the PSHB to trees and forestry in South Africa. **Prof. Wilhelm de Beer.**
- 17:00-17:30 Discussion and closing

18:00 ANNUAL TPCP DINNER CELEBRATION at Future Africa

WEDNESDAY 15 May 2019

(All activities on Tuesday will 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 CRISPR and the opportunities for pest management. **Dr Gudrun Dittrich-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 (re)emerging tree health problems

- 11:00-11:15 Replanting syndrome in forestry: What is the evidence? **Dr Tanay Bose.**
- 11:15-11:30 Biological control of *Gonipterus* sp.2. **Dr Michelle Schröder.**
- 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)