

Venue: Discovery Centre, CSIRO, Canberra, Australia

Programme and Speakers

Tuesday 21 April

Registrations – CSIRO Discovery 1pm-5pm

Welcome ‘Ice Breaker’ - CSIRO ‘Discovery’ café 5.00 – 7.30. After registering please join us for an informal social event and the opportunity to meet old and new friends.

Symposium Day 1 – Wednesday 22 April

8.30	Bob Furbank	Welcome / general introduction
8.35	Representative of the ACT Government	Welcome and opening address

Day 1 – Wednesday 22 April Session 1 Abiotic Stress Chair: Mark Tester

8.45	Bernhard Genty, Cadarache DEVM- Laboratoire d'Écophysiologie de la Photosynthèse, France	Infra-red screening for stomatal mutants
9.25	Bob Furbank, CSIRO	Adaptive or survival trait? Designing appropriate germplasm screens for abiotic stress research.
10.05	Peter Gregory, Scottish Crops Research Institute, UK	Root phenomics of crops– opportunities and challenges
10.45	Morning Tea	
11.10	Richard Richards, CSIRO	Breeding for water-use efficiency – genes, QTLs and phenotypes.
11.50	Mark Tester, University of Adelaide	Salt tolerance screening
12.30	Lunch	
1.30	Peter Langridge, University of Adelaide	Identifying QTLs for root development in dry environments

Day 1 – Wednesday 22 April Session 2 Biotic Stress Chair: John Manners

2.10	Michelle Watt, CSIRO	Imaging root biosphere interactions
2.50	Julie Scholes, University of Sheffield, UK	Fluorescent imaging of fungal pathogen infections
3.30	Afternoon Tea	
4pm	Mick Ayliffe, CSIRO	Barley activation tag screening
4.40 – 6.30	Poster session and short talks - light food and drinks – mixing opportunity	

Day 2 – Thursday 23 April Session 3 Growth and Yield Chair: Suzanne von Caemmerer

9.00	Achim Walter, Forschungszentrum Julich, Germany	Digital imaging of growth dynamics reveals gene x environment interactions on plant phenotype.
9.40	Terenzio Zenone, European commission. Joint research centre	Use of Ground-Penetrating Radar, and Electrical Resistivity Tomography, to study tree roots
10.20	Murray Badger, ANU	Chlorophyll fluorescence screening for photorespiratory mutants.
11.00	Morning Tea	
11.20	Dave Kramer, Washington State University, USA	Non-invasive measurements of chloroplast function in leaves.
12 noon	Uli Schurr, Forschungszentrum Julich, Germany	Imaging roots and root function in soil
12.40	Lunch	

Day 2 – Thursday 23 April Session 4 Ecosystem Dynamics and Climate Change Chair: Mark Howden

1.30	Darius Culvenor, CSIRO	Monitoring forestry performance using the Laser reflection technique ECHIDNA
2.10	Joe Berry, Stanford University, USA	Climate change and monitoring plant ecosystems
2.50	Marilyn Ball, ANU	Hyperspectral and IR imaging of leaves during freezing
3.30	Afternoon Tea	
3.45	Michael Purugganan, New York University, USA	Understanding the limits of environmental plasticity
4.25	Hamlyn Jones, University of Dundee, UK	IR imaging of plant canopies: scaling up the remote diagnosis and quantification of plant stress to the field and beyond

Symposium Dinner 6.00-10.30 National Gallery of Australia
 Busses will collect registrants from University House and Civic Centre at 6pm, for transport to the Australian National Gallery and will return at 10.30.

Day 3 – Friday 24 April Session 5 Next Generation Technologies and High Throughput Screening
Chair: Geoff Fincher

8.45	Short talks (10 minutes each): <ul style="list-style-type: none">❖ APPF nodes❖ Julich Phenomics Centre❖ CropSense❖ CropDesign❖ Monsanto❖ LemnaTec – new tools
10:00	Morning Tea
10.30 – 12 noon	Roundtable; where to from here? <ul style="list-style-type: none">• How do we apply the new technologies to solve problems (yield and food production [food security], climate change adaptation, drought tolerance, biofuels / biomass).• Future development of International Plant Phenomics Network (http://www.plantphenomics.com/); coordination and funding of major international initiatives, e.g. phenotyping model systems and cereal collections. Widen membership? Establish a steering committee?• Future meeting? Date? Hosting?• Building a phenomics centre – architectural fly-through and site visit (12 noon)
12:30	Close