

PROGRAM

TUESDAY, 28 JUNE 2016

- 16:00-18:00 Registration
18:00-19:00 Welcome reception and Australian wild life encounter
19:00-20:30 Dinner and introduction to O'Reilly's

WEDNESDAY, 29 JUNE 2016

- 8:50-9:10 Official welcome and opening remarks

SESSION 1: EVOLUTION AND ECOLOGY I

Chair: **Markus Riegler**

- 9:10-9:30 **Turelli, Michael:** Genomic variation of wRi *Wolbachia* and phenotypic effects in *Drosophila simulans*
9:30-9:50 **Kriesner, Peter:** Persistence of a *Wolbachia* infection frequency cline in *Drosophila melanogaster* and the possible role of reproductive dormancy
9:50-10:10 **Ginsberg, Paul:** *Wolbachia* in the *montium* species subgroup of *Drosophila*: prevalence, phylogenies, and associated phenotypes
10:10-10:30 **Cooper, Brandon:** *Wolbachia* in the *Drosophila yakuba* complex: frequency variation in space and time with cytoplasmic incompatibility modulated by intraspecific *Wolbachia*-host covariation
10:30-11:00 Break

SESSION 2: EVOLUTION AND ECOLOGY II

Chair: **Peter Kriesner**

- 11:00-11:20 **Cattel, Julien:** Identification of a candidate *Wolbachia* strain for developing the Incompatible Insect Technique to control *Drosophila suzukii* populations
11:20-11:40 **Hong, Xiao-Yue:** Effects of host interaction with *Wolbachia* on CI in the two-spotted spider mite *Tetranychus urticae*
11:40—12:00 **Nguyen, Duong:** Male development, post-embryonic and embryonic mortality – diverse outcomes of *Cardinium*- and *Wolbachia*-induced cytoplasmic incompatibility in thrips
12:00-12:20 **Gebiola, Marco:** *Cardinium* contribute to speciation in *Encarsia* wasps: a novel mechanism based on cytoplasmic incompatibility and Darwin's corollary
12:20-14:00 Lunch

SESSION 3: EVOLUTION AND ECOLOGY III

Chair: **Anne Duplouy**

- 14:00-14:20 **Zug, Roman:** Evolution of reproductive parasites with direct fitness benefits
- 14:20-14:40 **Lefoulon, Emilie:** Breakdown of coevolution between symbiotic bacteria *Wolbachia* and their filarial hosts
- 14:40- 15:00 **Rota-Stabelli, Omar:** Towards a molecular clock of *Wolbachia*
- 15:00-15:30 Coffee break

SESSION 4: EVOLUTION AND ECOLOGY IV

Chair: **Molly Hunter**

- 15:30-15:50 **Kageyama, Daisuke:** A new phenotype of *Wolbachia*: manipulation of female meiosis in *Eurema* butterflies with ZO karyotype
- 15:50-16:10 **Truitt, Amy:** *Eurema* butterflies are quite hospitable: characterizing their parasitoids and associated *Wolbachia* strains
- 16:10-16:30 **Bouchon, Didier:** The microbiota as a bacterial passport? Community structure and major players in the terrestrial isopod microbiome
- 17:30-19:30 POSTER SESSION I
- 19:30-21:00 Dinner and cash bar

THURSDAY, 30 JUNE 2016

- 9:00-9:10 Announcements

SESSION 5: ENDOSYMBIONT GENOMICS I

Chair: **Jennifer Morrow**

- 9:10-9:30 **Klasson, Lisa:** Using comparative genomics to search for *mod* and *resc*
- 9:30-9:50 **Kampfraath, Dré:** The genetic basis of *Wolbachia* induced parthenogenesis and host dependency
- 9:50-10:10 **Lindsey, Amelia:** Extensive protein-coding sequence truncations in the parthenogenesis-inducing *Wolbachia* strain infecting *Trichogramma pretiosum*
- 10:10-10:30 **Hunter, Molly:** Comparative genomics of the reproductive manipulator symbiont *Cardinium*
- 10:30-11:00 Break

SESSION 6: ENDOSYMBIONT GENOMICS II

Chair: **Jeremy Brownlie**

- 11:00-11:20 **Morel, Olivier:** Evolutionary history of the *Coxiella* genus

- 11:20-11:40 **Brown, Amanda:** Evolutionary genomics of an ancestral *Wolbachia* from plant-parasitic nematodes
- 11:40-12:00 **Bordenstein, Sarah:** Unraveling the secrets of phage WO
- 12:00-13:30 Lunch
- 14:00-19:00 Free afternoon
- 19:00-20:30 Dinner and cash bar

FRIDAY, 1 JULY 2016

- 9:00-9:10 Announcements

SESSION 7: MOLECULAR AND CELLULAR BIOLOGY OF SYMBIOSIS I

Chair: **Wolfgang Miller**

- 9:10-9:30 **LePage, Daniel:** Discovery of *Wolbachia* genes that induce cytoplasmic incompatibility
- 9:30-9:50 **Beckmann, John:** Molecular mechanism of *Wolbachia* induced cytoplasmic incompatibility
- 9:50-10:10 **Serbus, Laura:** Proteomic analysis of *Wolbachia* impact on the *Drosophila* ovary
- 10:10-10:30 **Pietri, Jose:** Horizontal cell-to-cell transfer of *Wolbachia* is dependent on the host endocytic pathway
- 10:30-11:00 Break

SESSION 8: MOLECULAR AND CELLULAR BIOLOGY OF SYMBIOSIS II

Chair: **Laura Serbus**

- 11:00-11:20 **Miller, Wolfgang:** Linking *Wolbachia*-tropism to phenotype
- 11:20-11:40 **White, Pamela:** A genome-wide cell based RNAi screen reveals host ubiquitination and proteolysis pathways regulate *Wolbachia* intracellular titer
- 11:40-12:00 **Brownlie, Jeremy:** The face of a killer: how temperature, bacterial density and genome instability affect pathogenicity of a virulent *Wolbachia* strain
- 12:00-12:20 **Wang, Yu-Feng:** *Wolbachia* may improve learning and memory capacities of *Drosophila* by altering host gene expression through miRNA
- 12:20-14:00 Lunch

SESSION 9: *WOLBACHIA* AND PATHOGEN INTERACTIONS I

Chair: **Ewa Chrostek**

- 14:00-14:20 **O'Neill, Scott:** The use of *Wolbachia* to control the transmission of *Aedes aegypti* associated viruses: The Eliminate Dengue Program.

- 14:20-14:40 **Moreira, Luciano:** *Wolbachia* as a Zika control strategy in Brazil
14:40-15:00 **Caragata, Eric:** Dietary carbohydrate manipulation leads to differential pathogen interference in *Wolbachia*-infected *Aedes aegypti*

15:00-15:30 Break

SESSION 10: *WOLBACHIA* AND PATHOGEN INTERACTIONS II
Chair: **Luciano Moreira**

- 15:30-15:50 **Saucereau, Yoann:** Proteomic analysis of multipartite interactions in *Aedes albopictus*
15:50-16:10 **Gonçalves, Daniela:** *Wolbachia* introduction in *Lutzomyia longipalpis* (Diptera: Psychodidae) and its interaction with *Leishmania*
16:10-16:30 **Herren, Jeremy:** Interactions between endosymbiotic *Spiroplasma* and anopheline mosquitos
17:30-19:30 POSTER SESSION II
19:30-21:00 Dinner and cash bar

SATURDAY, 2 JULY 2016

9:00-9:10 Announcements

SESSION 11: SYMBIONT AND PATHOGEN INTERACTIONS
Chair: **Karyn Johnson**

- 9:10-9:30 **Kaur, Rupinder:** Evolutionary considerations for exploring the functional *Drosophila*-*Wolbachia*-Viruses trinity
9:30-9:50 **Chrostek, Ewa:** Temperature dependence of *Wolbachia*-conferred antiviral protection in *Drosophila*
9:50-10:10 **Fukatsu, Takeama:** Novel insect-microbe defensive symbioses
10:10-10:30 **Zchori-Fein, Einat:** Insect symbionts as bio-control agents against phloem-restricted plant pathogens
10:30-11:00 Break

SESSION 12: *WOLBACHIA* IN FILARIAL NEMATODES
Chair: **Bill Kozek**

- 11:00-11:20 **Makepeace, Ben:** Global transcriptome analysis of *Wolbachia* strain wOo under antibiotic pressure *in vivo*
11:20-11:40 **Le, Thuy:** SAR optimisation of potent anti-*Wolbachia* compounds
11:40-12:00 **Taylor, Mark:** ‘You’ll come A-WOLTzing Macrofilaricides with us’ – new macrofilaricide discovery and development through targeting *Wolbachia*
12:00-12:20 **TBA**
12:20-14:00 Lunch

SESSION 13: OTHER MICROBIAL SYMBIOSES OF INSECTS

Chair: **Heather Flores**

- 14:00-14:20 **Drew, Georgia:** 'Friend or foe': establishing the role of a symbiont in honey bee health
- 14:20-14:40 **White, Jen:** Facultative endosymbionts mediate dietary breadth in a polyphagous herbivore
- 14:40-15:30 Break
- 15:30-17:00 Discussions: species naming/regulatory aspects of *Wolbachia* and other endosymbiont applications around the globe
- 17:00-18:00 Closing address/new business and next conference
- 19:00-21:00 Conference dinner

SUNDAY, 3 JULY 2016

Departure