ICPP 2018 - Sixth International Oomycetes Workshop

Oomycetes in the era of Plant Health in A Global Economy

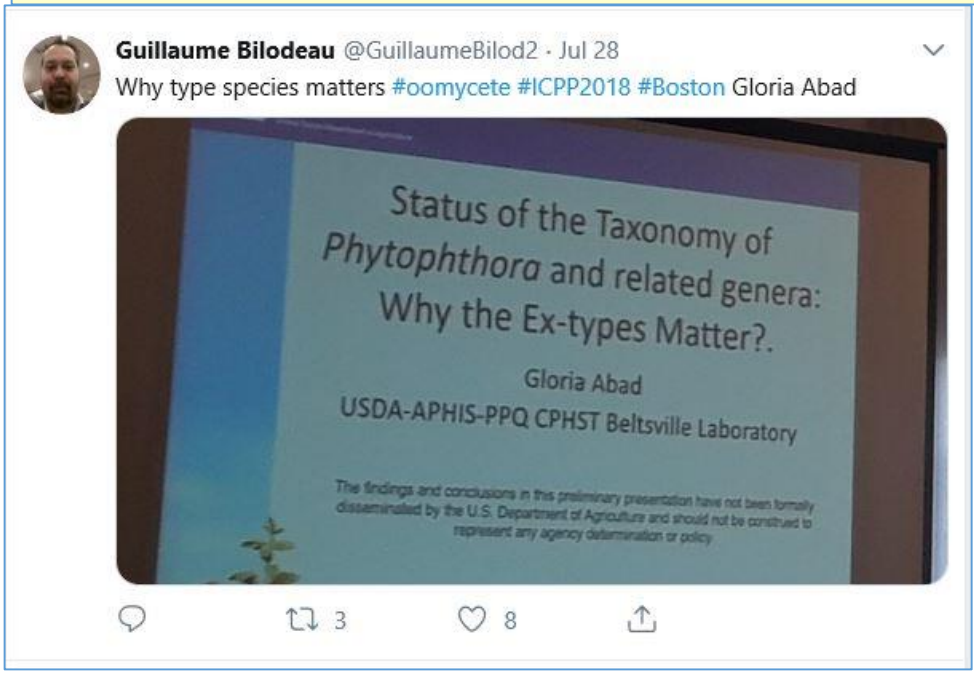
Boston, Massachusetts, USA - July 28, 2008

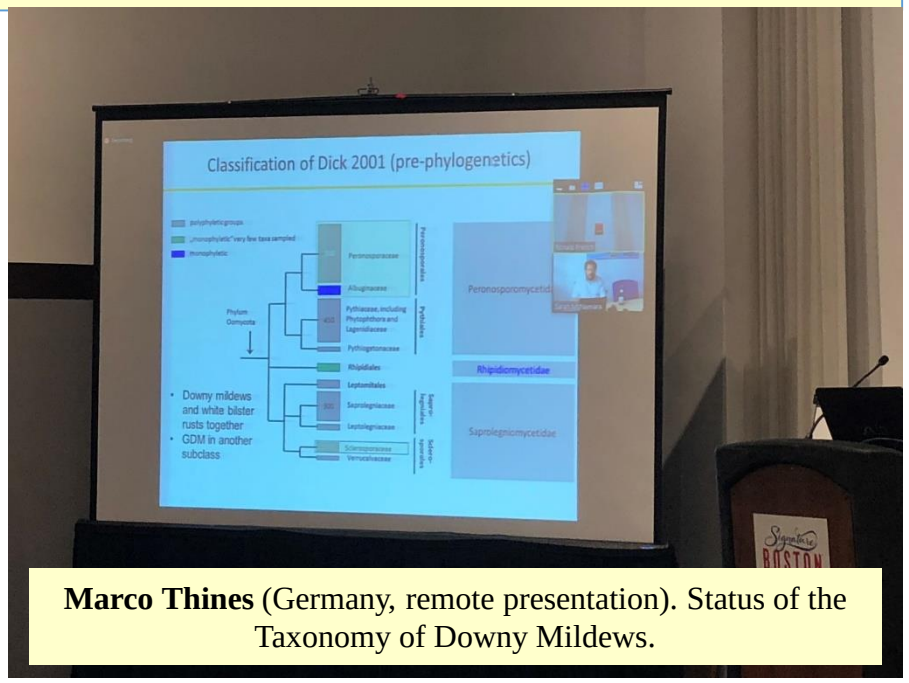
Workshop organized by the ISPP – SMC Oomycetes to celebrate the 50th anniversary of ISPP

ICPP 2018 - Sixth International Oomycetes Workshop

ICPP 2018 - 6th International Oomycetes Workshop welcoming remarks by Mary Palm (APS 2018 President) and Introduction by Gloria Abad (Chair and organizer of the event). In bottom participants of the event attending presentation from Frank Martin (USDA-ARS)

Session #1: Taxonomy and Nomenclature: Past, present, and future. Moderator: Hai Nguyen (Canada)



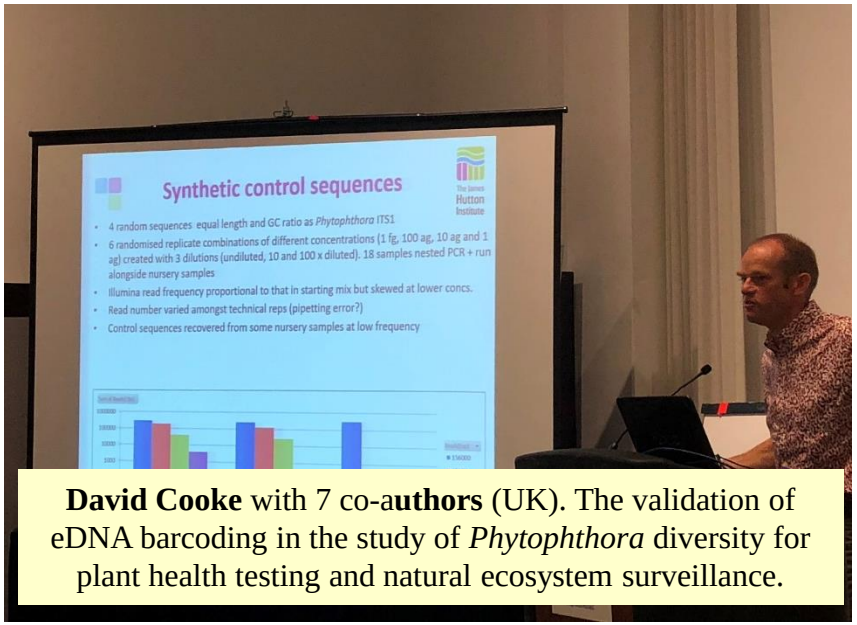


Marco Thines (Germany, remote presentation). Status of the Taxonomy of Downy Mildews.

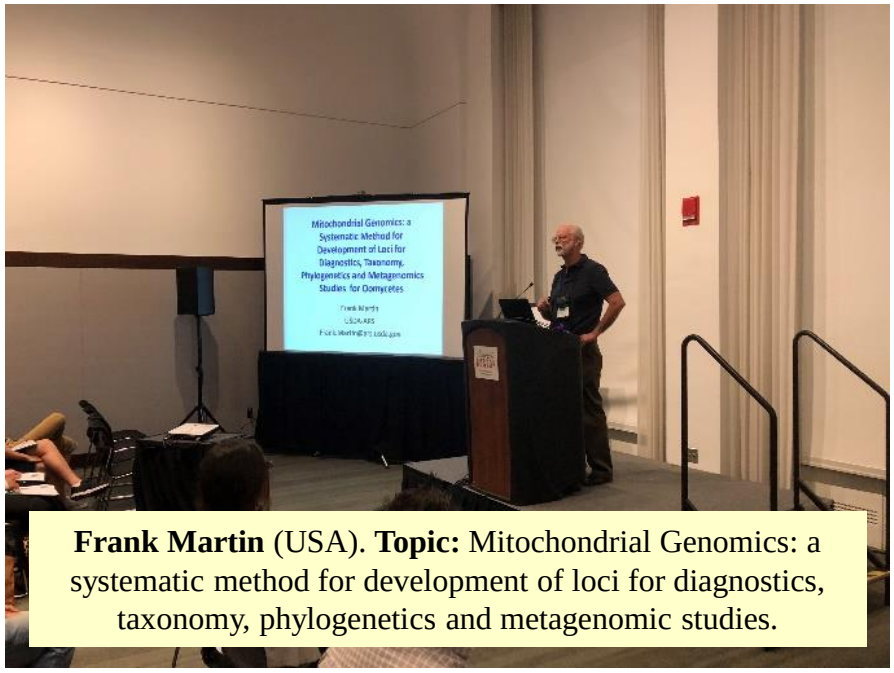
Carla Garzon with 2 co-authors (USA, Taiwan), Taxonomy of *Pythium*, *Phytopythium*, and *Pythiogeton*

Session #2: **Identification and diagnostics: From the traditional tools to the Innovative Genomic Sequencing Technologies (IGST) including NGS and TGS.** **Moderator:** **Guillaume Bilodeau** (Canada)

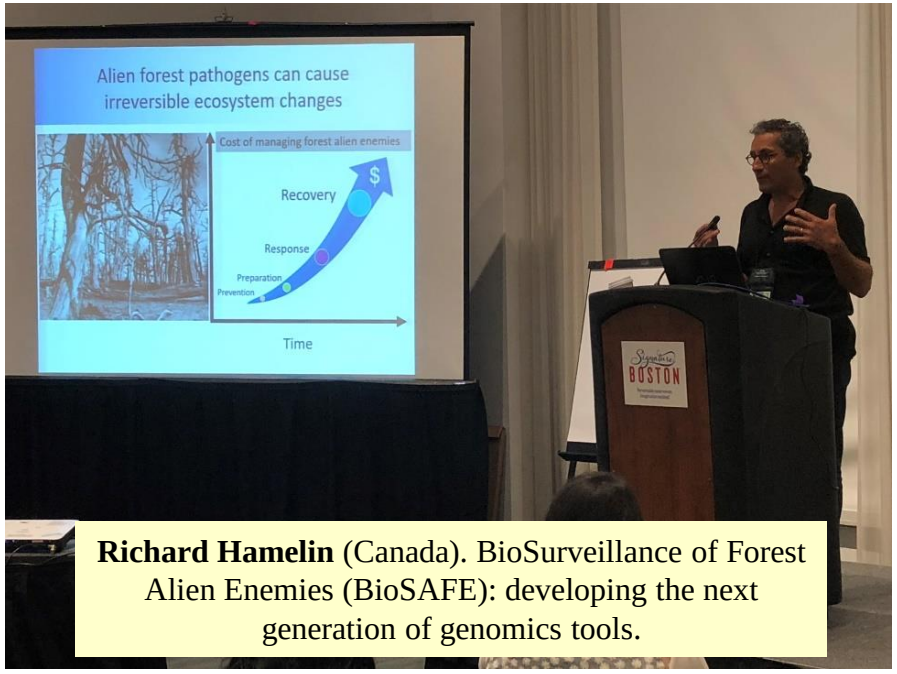
Steven Jeffers (USA). **Topic:** Isolation and identification of *Phytophthora* species the "old-fashioned" way.



David Cooke with 7 co-a**uthors** (UK). The validation of eDNA barcoding in the study of *Phytophthora* diversity for plant health testing and natural ecosystem surveillance.

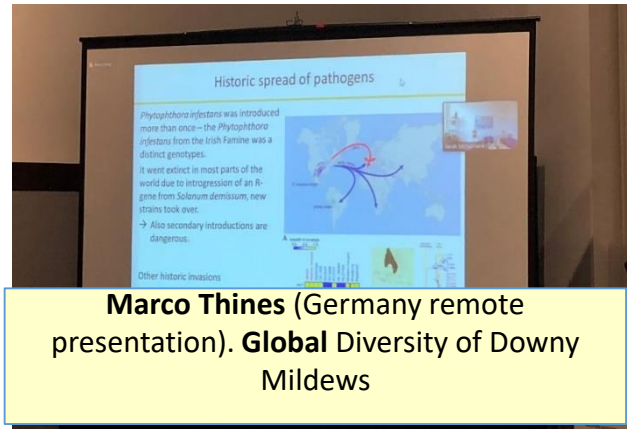


Frank Martin (USA). **Topic:** Mitochondrial Genomics: a systematic method for development of loci for diagnostics, taxonomy, phylogenetics and metagenomic studies.



Richard Hamelin (Canada). BioSurveillance of Forest Alien Enemies (BioSAFE): developing the next generation of genomics tools.

SESSION #3: Diversity in cultivated and natural environments: The global spread of pathogens.
Moderator: Ronald French (USA).



Marco Thines (Germany remote presentation). **Global** Diversity of Downy Mildews

Guillaume Bilodeau @GuillaumeBilod2 · Jul 28
Dr Kegeyama on diversity of #oomycete in Japan #ICPP2018

K. Kageyama (Japan)

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Guillaume Bilodeau @GuillaumeBilod2 · Jul 28
Dr Cacciola presenting on diversity of oomycetes in Europe #oomycete #ICPP2018

S.O. Cacciola et al. (Italy) - Europe

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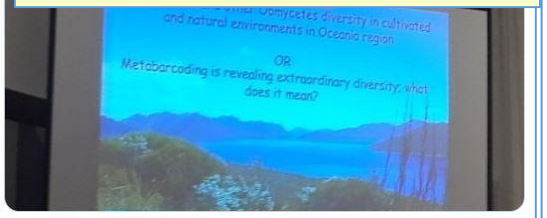
Guillaume Bilodeau @GuillaumeBilod2 · Jul 28
#ICPP2018 diversité #oomycete in Oceonia

T. Burgess et al (Australia) Oceania. Remote preesentation



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Guillaume Bilodeau @GuillaumeBilod2 · Jul 28
Diversity of #oomycete in South America #ICPP2018

P. Grijalba et al (Argentina) South America

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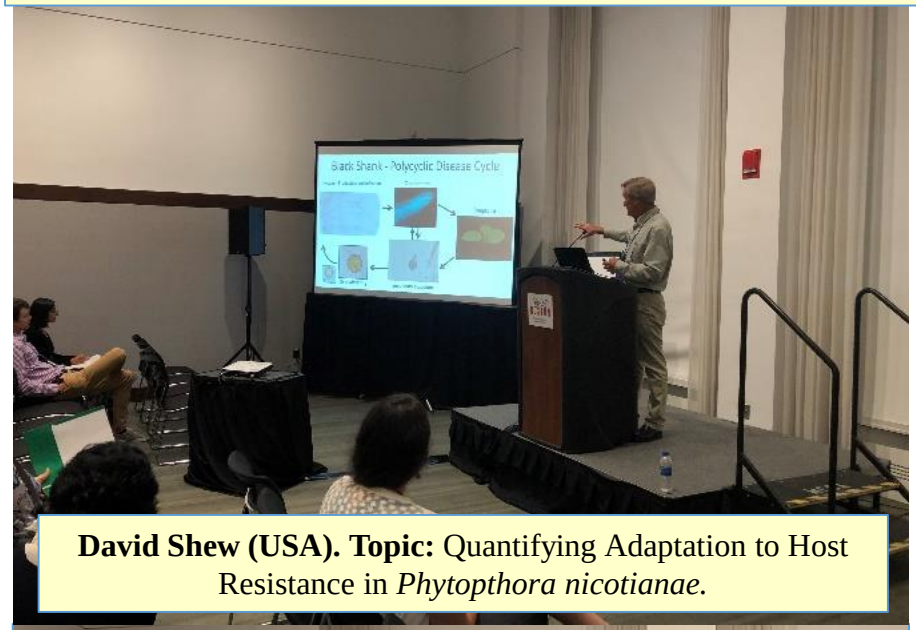
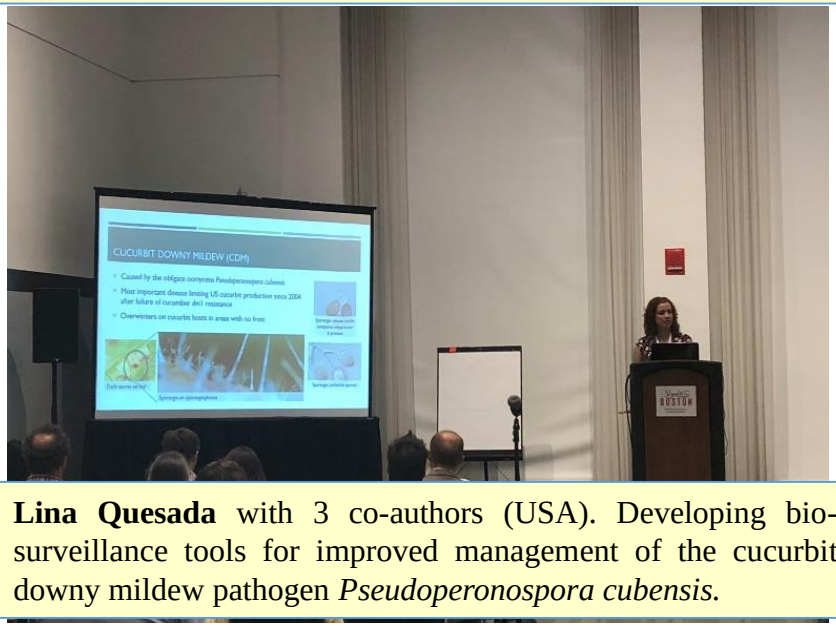
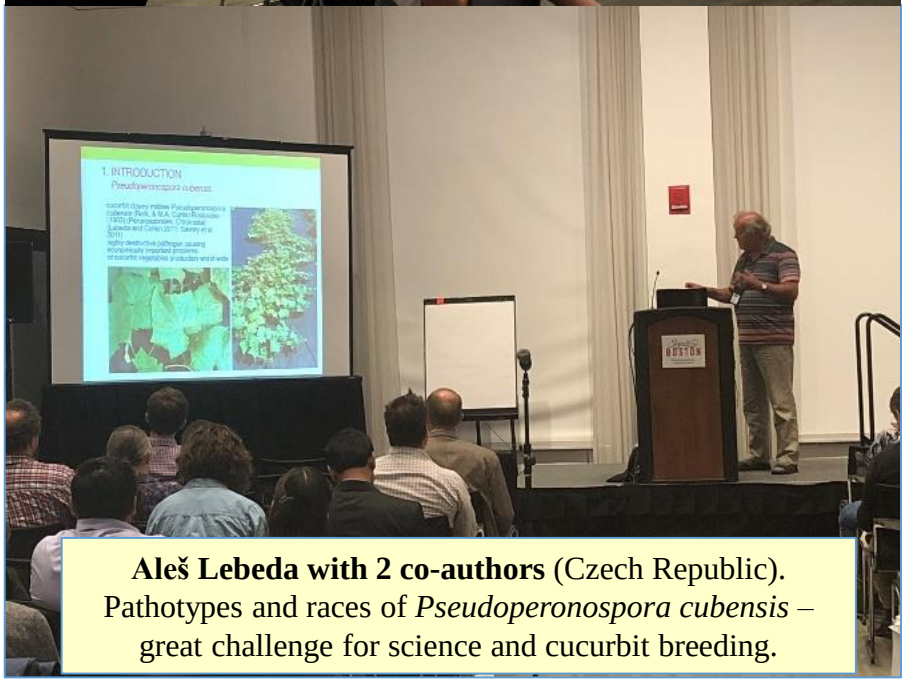
Session #4: Management and control: Advanced IPM-tools, improved biocontrol, enhancing resistance, sustainable production, agricultural systems for the future.



David Shew (USA). Topic: Quantifying Adaptation to Host Resistance in *Phytopthora nicotianae.*



Lina Quesada with 3 co-authors (USA). Developing bio-surveillance tools for improved management of the cucurbit downy mildew pathogen *Pseudoperonospora cubensis.*



Aleš Lebeda with 2 co-authors (Czech Republic). Pathotypes and races of *Pseudoperonospora cubensis* – great challenge for science and cucurbit breeding.

Mohamed Khan (USA). Managing *Aphanomyces* on Sugar Beet.

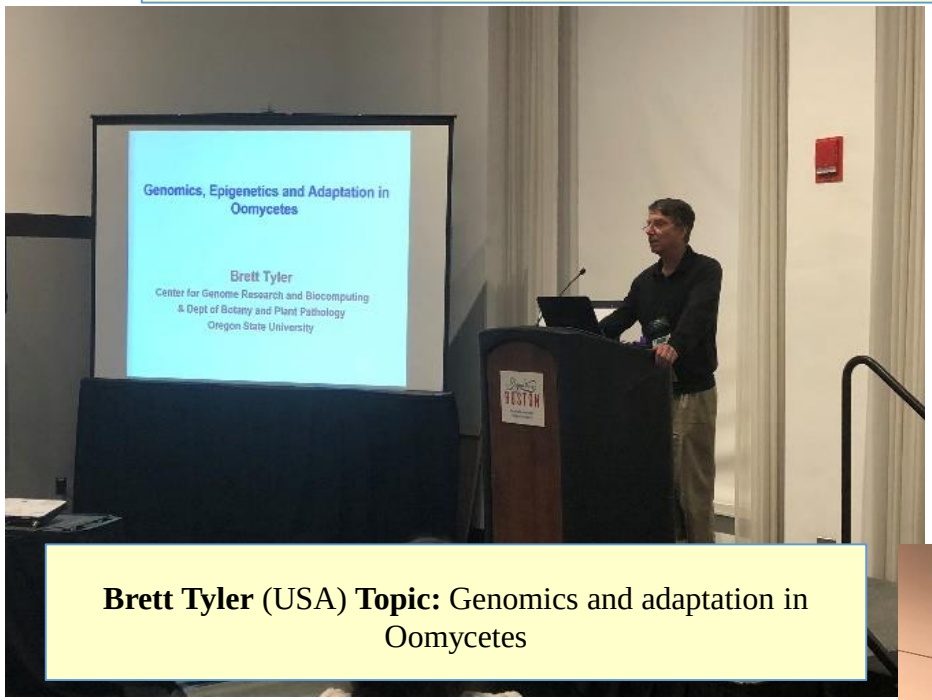
A)

Session #5: Plant pathogenic Oomycetes of concern: Trade regulations, advanced monitoring and certification. Moderator: Yazmin Rivera (USA). **Speakers: A) Jo Anne Crouch** (USA), Nicholas Le Blanc (USA), Catalina Salgado-Salazar (USA). **Topic:** Emerging downy mildews: The same old pathogens or new enemies?. **B) Susan J. Frankel** (USA). An Update on *Phytophthora ramorum*, *P. tentaculata* and other species of regulatory concern in the USA; **C) Sarah Green (FR), David Cooke (JHI) with 11 co-authors (UK).** *Phytophthora* in plant nursery settings, engaging with stakeholders and early initiatives on accreditation in UK.

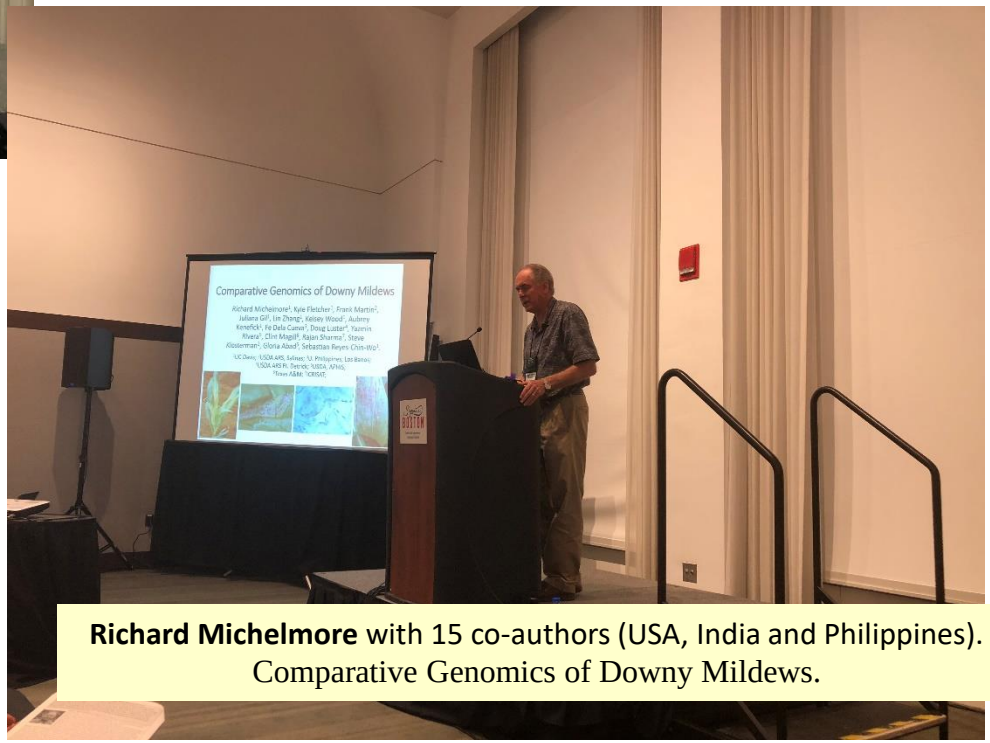
B)

B)

Session #6. Plant pathogenic Oomycetes: The era of genomics and microbiomics.

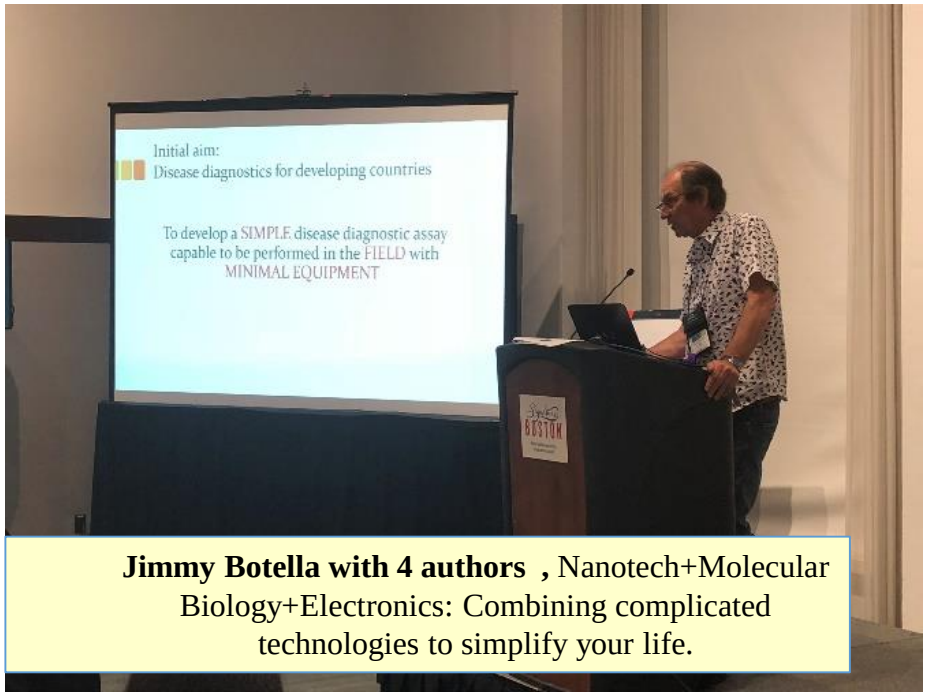


Brett Tyler (USA) **Topic:** Genomics and adaptation in Oomycetes

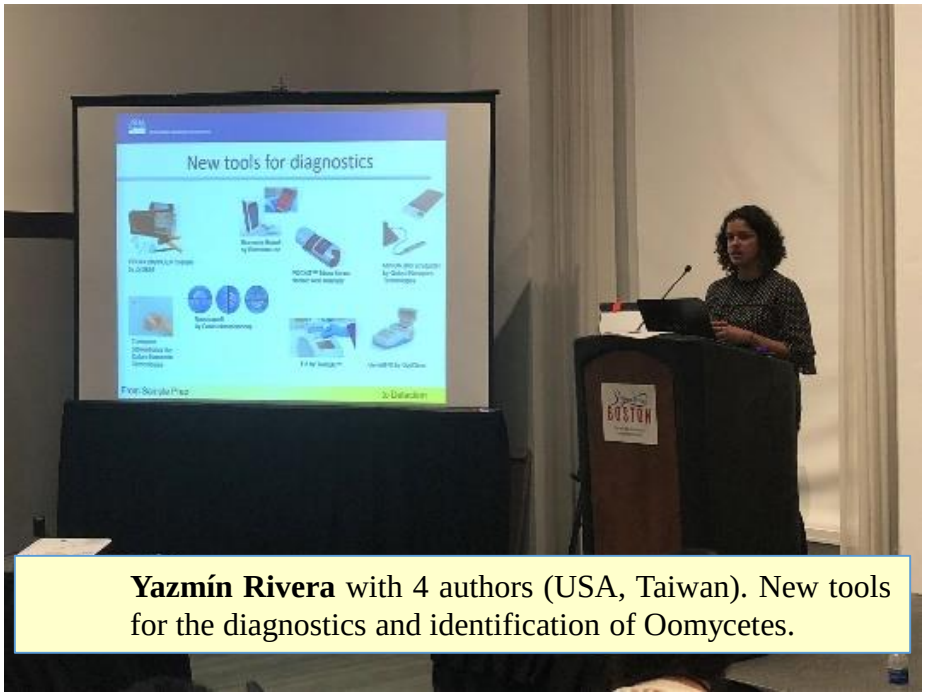


Richard Michelmore with 15 co-authors (USA, India and Philippines). Comparative Genomics of Downy Mildews.

Session #7. New technologies for Oomycete research: looking to the future.



Jimmy Botella with 4 authors , Nanotech+Molecular Biology+Electronics: Combining complicated technologies to simplify your life.



Yazmín Rivera with 4 authors (USA, Taiwan). New tools for the diagnostics and identification of Oomycetes.

Shankar Shakya, **Niklaus Grünwald** with 11 co-authors (USA, Czech Republic, Australia, Italy. Analysis of global populations of *Phytophthora cinnamomi* suggests presence of two dominant clonal lineages and evidence of sex in Southeast Asia.

Session #7. James Brayer (UK-USA Oxford Nanopore Technology). Portable Sequencing for Disease Detection, Diagnosis, Discrimination, and Discovery in Biological areas.

With demonstration of the MinION, and other portable devices.

Portable Sequencer to access all areas: MinION in traditional labs plus International Space Station, the Indian Ocean, the Artic Guinea (Ebola Monitoring), Tanzania (frog species surveillance), Under the sea (NASA/NEEMO), Brazil (Zika surveilance).

Session #7. Gloria Abad (USA), Treena Burgess (Australia), John Bienapfl (USA), Amanda Redford (USA), Michael Coffey (USA) and Leandra Knight (USA). **IDphy: Molecular and Morphological Identification of *Phytophthora* Based on the Types.**

ICPP 2018 - Sixth International Oomycetes Workshop in Twitter

Guillaume Bilodeau @GuillaumeBilod2 · Jul 28

Thanks Gloria Abad and All speakers for this #oomycete #ICPP2018 #boston workshop really enjoyed

5 18

Guillaume Bilodeau @GuillaumeBilod2 · Jul 28

Oomycete genomics by @BrettTylerOSU at #ICPP2018 #oomycete #Boston

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PathSensors, Inc. @PathSensorsInc · Jul 31

What a great time at the 6th International #Oomycetes workshop at #ICPP2018! Wonderful folks doing interesting work

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Guillaume Bilodeau @GuillaumeBilod2 · Jul 28

Forest invasive alien species challenge detection present at #oomycete #ICPP2018 #boston @BioSAFE_genome by @richamelin @GenomeCanada

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Guillaume Bilodeau @GuillaumeBilod2 · Jul 28

Dr Cacciola presenting on diversity of oomycetes in Europe #oomycete #ICPP2018

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herve van der heyden @der_herve · Jul 28

Guillaume Bilodeau presenting on #oomycetes diversity in North America #ICPP2018

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ICPP 2018 - Sixth International Oomycetes Workshop – Breaks with posters