

2ND CONGRESS OF THE INTERNATIONAL SOCIETY FOR CITRUS HUANGLONGBING AND PHLOEM-COLONIZING BACTERIAL PATHOSYSTEMS



Tuesday 25th – Friday 28th October 2022

Sheraton Sand Key Resort, Clearwater Beach, Florida, USA

(1160 Gulf Boulevard, Clearwater Beach, FL 33767, USA)



ORGANIZED BY



For more information visit <https://crec.ifas.ufl.edu/ISCHPP/>

The theme of the conference

“Confronting the Phloem-Colonizing Bacterial Pathosystems Together”

The conference will focus on diagnostics, epidemiology, pathogen biology, pathogen/plant, pathogen/insect and insect/plant interactions, insect biology, plant defense, biotechnology, and control of the diseases caused by the phloem-colonizing bacterial pathogens including *Candidatus Liberibacter*, *Candidatus Phytoplasma*, and *Spiroplasma*.

Opportunities for early career professionals

Ten or more time slots are reserved for student and postdoc speakers for short talks based on abstracts submitted.

Scientific Advisory Committee

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Kranthi K. Mandadi, Texas A&M University, USA
Jinyun Li (secretary), UF, USA
Erica Watson Carter (secretary), UF, USA

Conference Venue: Clearwater

Clearwater is a city in Florida's Tampa Bay area known for sunny weather and gulf coast beaches. Clearwater Beach, on a barrier island, is a 3-mile stretch of white sand backed by hotels and restaurants. It's the home of the famous Clearwater Marine Aquarium, as seen in the movie A Dolphin Tale. The Sheraton Sand Key Resort is the perfect meeting place in Clearwater, on the beach.

Confirmed Speakers:

(Listed in alphabetical order)

Bryony Bonning	University of Florida	USA
Cecilia Tamborindéguy	Texas A&M University	USA
Dean Gabriel	University of Florida	USA
Hailing Jin	University of California Riverside	USA
Laure Beven	French National Institute for Agricultural Research	France
Lukasz L. Stelinski	University of Florida	USA
Michael Rogers	University of Florida	USA
Nabil Killiny	University of Florida	USA
Raymond Yokomi	USDA-ARS	USA
Saskia Hogenhout	John Innes Centre	UK
Wenbo Ma	Sainsbury Laboratory	UK

Meeting Schedule

October 25, 2022 - Tuesday: Arrival and registration

October 26, 2022 - Wednesday: meeting day 1 (lunch provided), poster session, and reception in the evening

October 27, 2022 - Thursday: meeting day 2 (lunch provided) and conference dinner

October 28, 2022 - Friday: meeting day 3 (lunch provided), poster session

Scientific Program

The conference will be comprised of ten 1.5-hour sessions, plus three late-afternoon poster sessions. For each section, there will be invited presentations, selected oral presentations (one slot will be reserved for postdoc/graduate student if applicable).

Session 1: *Diagnostics and epidemiology*

Session 2: *Pathogen-Plant-Vector interactions*

Session 3: *Pathogen biology*

Session 4: *Insect biology*

Session 5: *Phloem biology*

Session 6: *Plant breeding for disease and vector control*

Session 7: *Biotechnology for disease and vector control*

Session 8: *Management approaches for pathogen/vector control*

Session 9: *Effector biology*

Session 10: *Pathogen evolution and genomics*



Registration and Abstract submission

Early Bird Registration: June 1 - July 1, 2022

Registration fee: Faculty and staff scientists: \$450, postdoc: \$350, student: \$250

Regular Registration: July 2 - August 31, 2022

Registration fee: Faculty and staff scientists: \$500, postdoc: \$400, student: \$300

Late Registration: September 1 – September 25, 2022

Registration fee: Faculty and staff scientists: \$550, postdoc: \$450, student: \$350

Abstract Submission: Opens on June 1, 2022. Deadline 8/31/2022. Please email the abstract (250 words limit) in a Word (.doc or .docx) file to Jinyun Li (Email: jinyunli@ufl.edu) and state the session you wish to submit to and presentation preference, either an oral or poster presentation. Please use the attached abstract as example to format your abstract. The abstract needs to include title, authors, author affiliations, and abstract (250 words limit).

Please register online via the conference website (<https://crec.ifas.ufl.edu/ISCHPP/>). All online registrations require credit card payment. To pay by other method, please contact: Erica Watson Carter (Email: ewcarter@ufl.edu)

Student and Early Career Scientist Awards:

Awards will be based on presentations, either oral or posters.

Questions? Please contact: Erica Watson Carter (Email: ewcarter@ufl.edu)

Posters must NOT exceed 46 inches (116cm) high by 42 inches (106 cm) wide.

Acknowledgements

This meeting is supported by Citrus Research and Education Center (CREC), Institute of Food and Agricultural Sciences (IFAS), University of Florida (UF).

(Example Abstract)

***In planta* antibacterial activity of oxytetracycline against *Candidatus Liberibacter asiaticus* causing citrus HLB disease**

Jinyun Li¹, Erica W. Carter², Vladimir Kolbasov¹, and Nian Wang¹
(Presenter is underlined)

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²Citrus Research and Education Center, Plant Pathology Department, University of Florida, Lake Alfred, FL, 33850, USA

Oxytetracycline (OTC) is currently being used to control citrus Huanglongbing (HLB) in Florida by foliar spray. However, the antimicrobial activity of OTC against the HLB pathogen *Candidatus Liberibacter asiaticus* (Las) remains poorly understood due to the difficulty to culture this bacterium. We investigated the antibacterial activity of OTC against Las in greenhouse and field experiments. Citrus trees infected by Las were treated with OTC via trunk injection. Las titers and OTC residues in leaf samples were determined using qPCR and HPLC assays respectively, following OTC treatment. Greenhouse experiments showed that OTC injection at 0.05g/tree resulted in a decline of Las populations to undetectable level (Ct value ≥ 36.0) from 7 to 30 days post treatment (DPT), with observed levels of OTC residues at 0.7-0.8 ppm. Field experiments revealed that at an injection rate of 2.0 g/tree, OTC resulted in the decline of Las titers to the undetectable level from 7 to 28 DPT, with observed levels of OTC residues at 0.9-1.2 ppm. In both greenhouse and field trials, nonlinear regression analyses indicated that the levels of suppression of Las population were positively associated with OTC residue levels in leaves. These results suggested that the threshold for OTC to eliminate Las from HLB diseased trees could be ≥ 0.9 ppm in leaf tissues under field conditions. These findings may be useful for citrus growers in developing an effective HLB management program with OTC.