

Miaoying Tian
College of Tropical Agriculture and Human Resources
 (Department of Plant and Environmental Protection Sciences)
 FTE Distribution: 30% I; 70% R

Education

<u>Degree</u>	<u>University</u>	<u>Major</u>
Bachelors	Agricultural University of Hebei	Plant Protection
Masters	Chinese Academy of Agricultural Sciences	Plant Pathology
PhD	The Ohio State University	Plant Pathology

Professional Appointments

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Associate Researcher	University of Hawaii at Manoa	08/01/2019
Assistant Researcher	University of Hawaii at Manoa	01/02/2014
(Senior) Research Associate	Boyce Thompson Institute	04/2009
Postdoctoral Associate	Michigan State University	04/2006
Postdoctoral Associate	Boyce Thompson Institute	04/2005

Courses Taught

Course ID and Title (credits)

- PEPS/TPSS/SUST 371 Genetics: Theory to Application, 3 credits (yearly, since 2014)
- PEPS/MBBE 652 Molecular Plant-Fungal Interactions, 3 credits (every 2 years, since 2015)
- PEPS 605 Biology of Plant Pathogens: Fungi and Nematodes (Fungi section, 2 credits) (yearly, since 2017)
- PEPS 600 Seminar in Plant Pathology (in rotation, 2014, 2019, 2022)
- PEPS 499 and 699 Direct Research for Undergraduate and Graduate Students (all semesters)
- A guest lecture for PEPS 405 Plant Pathogens and Diseases (Fall 2019-2022)

Publications (reverse chronological order)

Books

Book Chapters

Tian M., Navet N., and Wu D. (2020) CRISPR/Cas9-mediated gene editing of the plant pathogenic oomycete *Phytophthora palmivora*. Book chapter in **CRISPR-Cas Methods**. Springer Protocols Handbooks <https://link.springer.com/book/10.1007%2F978-1-0716-0616-2>, Page 87-98.

Conference Proceedings (Since 2014)

Note: Graduate students or researchers under my direct supervision are underlined.

Shipman, A.K., **Tian M.** (2022) Genome informed characterization of a banana Fusarium wilt pathogen in Hawaii. (Abstr) APS annual meeting 2022 abstract.

Hoyt, B., Crane, J., Monica N., Gazis R., Cano L., Adhikari A., **Tian M.**, Jifon J., Goenaga R., Adaskaveg J. E., Manosalva P. (2022) A multistate population study of *Phytophthora cinnamomi* and strategies to control avocado phytophthora root rot. APS annual meeting 2022 abstract.

Hasley J. A. R. and **Tian M.** (2022) Genome editing of papaya through *Agrobacterium*-mediated transformation. ASPB Annual meeting 2022 abstract.

Hasley J. A. R. and **Tian M.** (2021) CRISPR/Cas9-mediated mutagenesis of multi-copy sweet basil candidate susceptibility gene *ObDMR6* enhances downy mildew resistance. ASPB Annual meeting 2021 abstract.

- Johnson E. T., Doehring M., Kim H. S., **Tian M.**, Gonda I., and Dudai N. (2021) Dual transcriptome analysis of the susceptible interaction between basil and *Peronospora belbahrii*. (Abstr.) *Phytopathology* 111: S2.36. <https://doi.org/10.1094/PHYTO-111-10-S2.36>
- Standish J. R., Bowman M. J., Childs K. L., Tian M., Quesada L. M. (2021) Development and validation of *Peronospora belbahrii*-specific diagnostic markers. (Abstr.) *Phytopathology* 111: S1.5. <https://doi.org/10.1094/PHYTO-111-9-S1.5>
- Standish J. R., Bowman M. J., Childs K. L., **Tian M.**, Quesada L. M. (2021) Developing a probe-based real-time quantitative PCR assay to detect *Peronospora belbahrii* using species-specific diagnostic markers. *Phytopathology* 111: S2.113. <https://doi.org/10.1094/PHYTO-111-10-S2.113>
- Standish J. R., Purayannur, S., Bowman M., Childs K. L., **Tian M.**, Quesada L. M. (2020) Predicting the *Peronospora belbahrii* secretome for in silico identification of effector proteins. (Abstr.) *Phytopathology* 110: S1.18. <https://doi.org/10.1094/PHYTO-110-7-S1.1>
- Standish J. R., Bowman M. J., Childs K. L., **Tian M.**, Quesada-Ocampo L. M. (2020) Utilizing comparative genomics to develop species-specific diagnostic markers for basil downy mildew. (Abstr.) *Phytopathology* 110: S2.1. <https://doi.org/10.1094/PHYTO-110-12-S2.59>
- Johnson E. T., Quesada-Ocampo L., Bowman M., Childs K., **Tian M.** (2020) Differential expression of genes encoding sugar transporters in the basil pathogen *Peronospora belbahrii*. (Abstr.) *Phytopathology* 110: S2.1. <https://doi.org/10.1094/PHYTO-110-12-S2.72>
- Navet N., **Tian M.** (2019) Targeted mutagenesis of basil candidate susceptibility gene DMR1 using CRISPR/Cas9. (Abstr.) *Phytopathology* 109: S2.22. <https://doi.org/10.1094/PHYTO-109-10-S2.1>
- Cai Z., Navet N., Uchida J., and **Tian M.** (2018) A host-specific RxLR effector of *Phytophthora palmivora* contributes to virulence on cacao. (Abstr.) *Phytopathology* 109: S2.58. <https://doi.org/10.1094/PHYTO-108-12-S2.1>
- Tian M.**, Gumtow R., Navet N., Wu D., Schornack S. and Uchida J. (2017) Dissecting the pathogenicity mechanisms of *Phytophthora palmivora*. (Abstr.) *Phytopathology* 107: S5.25
- Wu D., Win J., Shao D., and **Tian M.** (2015) Dissecting the molecular basis of basil *Peronospora belbahrii* interactions. (Abstr.) *Phytopathology* 105(Suppl. 4): S4.150

Refereed Journal Publications

Notes: Corresponding author suggests the project leadership of the study and contribution to all aspects, including concept development, supervision, manuscript writing and editing; Graduate students or researchers under M. Tian's direct supervision are underlined.

37. Standish J., Góngora-Castillo E., Bowman M.J., Childs K., **Tian M.**, Quesada-Ocampo L. (2022) Development, validation, and utility of species-specific diagnostic markers for detection of *Peronospora belbahrii*. *Phytopathology*, 112(8):1667-1675.
36. Johnson E. T., Kim H. S., **Tian M.**, Dudai N., Tal O., Gonda I. (2022) Dual transcriptional analysis of *Ocimum basilicum* and *Peronospora belbahrii* in susceptible interactions. *Plant Gene*, 29:100350.
35. Hasley J. A. R., Navet N., **Tian M.*** (2021) CRISPR/Cas9-mediated mutagenesis of sweet basil candidate susceptibility gene *ObDMR6* enhances downy mildew resistance. *PLoS One*, 16(6): e0253245. doi: 10.1371/journal.pone.0253245. (*Corresponding author)
34. Navet N. and **Tian M.*** (2020) Efficient targeted mutagenesis in allotetraploid sweet basil by CRISPR/Cas9. *Plant Direct*, 4(6): e00233. (*Corresponding author)
33. Navet N. and **Tian M.*** (2020) *Agrobacterium*-mediated transformation of sweet basil (*Ocimum basilicum*) *Bio-protocol*, 10(22): e3828. (*Corresponding author)
32. Petongkhao S., Navet N., Schornack S., **Tian M.***, Churngchow N* (2020). A secreted protein of 15 kDa plays an important role in *Phytophthora palmivora* development and pathogenicity. *Scientific Reports*, 10: 2319 (*Corresponding author)
31. Shao D. and **Tian M.*** (2018) A qPCR approach to quantify the growth of basil downy mildew pathogen

Peronospora belbahrii during infection. *Current Plant Biology*, 15:2-7. (*Corresponding author)

30. Gumtow R., Wu D., Uchida J. and **Tian M.*** (2018) A *Phytophthora palmivora* extracellular cystatin-like protease inhibitor targets papain to contribute to virulence on papaya. *Molecular Plant-Microbe Interactions*, 31(3):363-373. (*Corresponding author) (Cover page article)

29. Mishra S., Wang K. H., Sipes B. S. and **Tian M.** (2018) Induction of host-plant resistance in cucumber by vermicompost tea against root-knot nematode. *Nematopica*, 48(2):164-171.

28. Ekchaweng K., Evangelisti E., Schornack S., **Tian M.*** and Churngchow N*. (2017) The plant defense and pathogen counterdefense mediated by *Hevea brasiliensis* serine protease HbSPA and *Phytophthora palmivora* extracellular protease inhibitor PpEPI10. *PLoS One*, 12(5):e0175795. (*Corresponding author)

27. Mishra S., Wang K. H., Sipes B. S. and **Tian M.** (2017) Suppression of root-knot nematode by vermicompost tea prepared from different curing ages of vermicompost. *Plant Disease*, 101(5): 734-737.

26. Wu D., Navet N., Liu Y., Uchida J. and **Tian M.*** (2016) Establishment of a simple and efficient *Agrobacterium*-mediated transformation system for *Phytophthora palmivora*. *BMC Microbiology*, 16:204 (*Corresponding author)

25. Khunjan U., Ekchaweng K., Panrat T., **Tian M.**, and Churngchow N. (2016) Molecular cloning of HbPR-1 gene from rubber tree, expression of HbPR-1 gene in *Nicotiana benthamiana* and its inhibition of *Phytophthora palmivora*. *PLoS One*, 11(6): e0157591.

24. Klessig D. F., **Tian M.**, and Choi H. W. (2016) Multiple targets of salicylic acid and its derivatives in plants and animals. *Front Immunol.* 7:206.

23. Choi H. W., Manohar M., Manosalva P., **Tian M.**, Moreau M., and Klessig D. F. (2016) Activation of plant innate immunity by extracellular high mobility group box 3 and its inhibition by salicylic acid. *PLoS Pathogens*, 12(3): e1005518.

22. Choi H. W.*, **Tian M.***, Manohar M., Harraz M. M., Park S. W., Schroeder F. C., Snyder S. H., and Klessig D. F. (2015) Human GAPDH is a target of aspirin's primary metabolite salicylic acid and its derivatives. *PLoS One*, 10(11): e0143447. (*Co-first author)

21. Choi H. W., **Tian M.**, Song F., Venereau E., Preti A., Park S. W., Hamilton K., Swapna G. V., Manohar M., Moreau M., Agresti A., Gorzanelli A., De Marchis F., Wang H., Antonyak M., Micikas R. J., Gentile D. R., Cerione R. A., Schroeder F. C., Montelione G. T., Bianchi M. E., and Klessig D. F. (2015) Aspirin's active metabolite salicylic acid targets high mobility group box 1 to modulate inflammatory responses. *Mol. Med.* 18(21):526-35.

20. Manohar M.*, **Tian M.***, Moreau M.*, Park, S. W., Choi H. W., Fei Z., Friso G., Asif M., Manosalva P., von Dahl C. C., Shi K., Ma S., Dinesh-Kumar S. P., O'Doherty I., Schroeder F. C., van Wijk K. J. and Klessig D. F. (2015) Identification of multiple salicylic acid-binding proteins using two high throughput screens. *Frontiers in Plant Science*, 5:777. (*Co-first author)

19. **Tian M.**, Sasvari Z., Gonzalez P., Friso G., Rowland E., Liu X., van Wijk K. J., Nagy P. D. and Klessig D. F. (2015) Salicylic acid inhibits the replication of Tomato Bushy Stunt Virus by directly targeting a host component in the replication complex. *Molecular Plant-Microbe Interactions*, 28(4):379-86. (Highlighted in MPMI as MPMI Editor's Pick, April 2015)

18. Liao Y., **Tian M.**, Zhang H., Li X., Wang Y., Xia X., Zhou J., Zhou Y., Yu J., Shi K., and Klessig D. F. (2015) Salicylic acid binding of mitochondrial alpha-ketoglutarate dehydrogenase E2 affects mitochondrial oxidative phosphorylation and electron transport chain components and plays a role in basal defense against tobacco mosaic virus in tomato. *New Phytologist*, 205(3):1296-1307.

17. Dong S., Stam R., Cano L. M., Song J., Sklenar J., Yoshida K., Bozkurt T. O., Oliva R., Liu Z., **Tian M.**, Win J., Banfield M. J., Jones A. M. E., van der Hoorn R. A. L. and Kamoun S. (2014) Effector specialization in a lineage of the Irish potato famine pathogen. *Science*, 343(6170):552-5.

16. Moreau M., Westlake T., Zampogna G., Popescu G., **Tian M.**, Noutsos C., and Popescu S. (2013) The Arabidopsis oligopeptidases TOP1 and TOP2 are salicylic acid targets that modulate SA-mediated signaling and the immune response. *Plant Journal*, 76(4):603-614.

15. **Tian M.**, von Dahl C. C., Liu P. P., Friso G., van Wijk K. J., and Klessig D. F. (2012) The combined use of photoaffinity labeling and surface plasmon resonance-based technology identifies multiple salicylic acid-binding

proteins. *Plant Journal*, 72(6):1027-1038.

14. Porter K., Shimono M., **Tian M.**, and Day B. (2012) Arabidopsis actin-depolymerizing factor-4 links pathogen perception, defense activation and transcription to cytoskeletal dynamics. *PLoS Pathogens*, 8(11):e1003006.

13. Moreau M.*, **Tian M.***, and Klessig D. F. (2012) Salicylic acid binds NPR3 and NPR4 to regulate NPR1-dependent defense responses. *Cell Research*, 22(12):1631-1633. (***Co-first author**)

12. **Tian M.**, Win J., Savory E., Burkhardt A., Held M., Brandizzi F., and Day B. (2011) 454 genome sequencing of *Pseudoperonospora cubensis* reveals effector proteins with a QXLR translocation motif. *Molecular Plant-Microbe Interactions*, 24(5):543-553. (Top 10 paper of MPMI in 2011)

11. Chinnapun D., **Tian M.**, Day B., and Churugchow N. (2009) Inhibition of a *Hevea brasiliensis* protease by a Kazal-like serine protease inhibitor from *Phytophthora palmivora*. *Physiological and Molecular Plant Pathology*, 74:27-33.

10. **Tian M.**, Chaudhry F., Ruzicka D. R., Meagher R. B., Staiger C. J., and Day B. (2009) Arabidopsis actin depolymerizing factor AtADF4 mediates defense signal transduction triggered by the *Pseudomonas syringae* effector AvrPphB. *Plant Physiology*, 150(2):815-824.

9. Song J., Win J., **Tian M.**, Schornack S., Kaschani F., Ilyas M., van der Hoorn R., and Kamoun S. (2009) Apoplastic effectors secreted by two unrelated eukaryotic plant pathogens target the tomato defense protease Rcr3. *Proc. Natl. Acad. Sci. U.S.A.*, 106(5):1654-1659.

8. Zhou F., Mosher S., **Tian M.**, Sassi G., Parker J., and Klessig D. F. (2008) The Arabidopsis gain-of-function mutant *ssi4* requires RAR1 and SGT1b differently for defense activation and morphological alterations. *Molecular Plant-Microbe Interactions*, 21(1):40-49.

7. **Tian M.**, Win J., Song J., van der Hoorn R., van der Knaap E., and Kamoun S. (2007) A *Phytophthora infestans* cystatin-like protein targets a novel tomato papain-like apoplastic protease. *Plant Physiology*, 143:364-377.

6. **Tian M.**, and Day B. (2006) Domain switching and host recognition. *Molecular Microbiology*, 61(5):1091-1093.

5. **Tian M.** and Kamoun S. (2005) A two disulfide bridge Kazal domain from *Phytophthora* exhibits stable inhibitory activity against serine proteases of the subtilisin family. *BMC Biochemistry*, 6:15.

4. Torto-Alalibo T., **Tian M.**, Gajendran K., Waugh M. E., van West P., and Kamoun S. (2005) Expressed sequence tags from the oomycete fish pathogen *Saprolegnia parasitica* reveal putative virulence factors. *BMC Microbiology*, 5:46.

3. **Tian M.**, Benedetti B., and Kamoun S. (2005) A second Kazal-like protease inhibitor from *Phytophthora infestans* inhibits and interacts with the apoplastic pathogenesis-related protease P69B of tomato. *Plant Physiology*, 138:1785-1793.

2. **Tian M.**, Huitema E., da Cunha L., Torto T., and Kamoun S. (2004) A Kazal-like extracellular serine protease inhibitor from *Phytophthora infestans* targets the tomato pathogenesis-related protease P69B. *Journal of Biological Chemistry*, 279(25):26370-26377.

1. Huitema E., Bos J. I. B., **Tian M.**, Win J., Waugh M. E., and Kamoun S. (2004) Linking sequence to phenotype in *Phytophthora*-plant interactions. *Trends in Microbiology*, 12(4):193-200.

Extension Publications

Creative Works (i.e., Extension Videos, Websites, Blogs, Creative Designs and Exhibitions, etc.)

Leadership Roles (Committees, Boards, Advisory, etc.)

Committees in college and department:

- a. CTAHR strategic planning working group (Fall 2021)
- b. PEPS graduate travel award committee (2020-2022)
- c. PEPS departmental personnel committee (DPC) (2019-2022)

- d. College of Tropical Agricultural and Human Resources (CTAHR) faculty senate (2015-2019)
- b. PEPS faculty search committee (2015-2016, Environmental Microbiologist; 2017, Pollinator biologist; 2019, Entomologist)
- c. Curriculum committee for the joint undergraduate program of PEPS and TPSS (2016-2017, 2020-2022)
- d. Undergraduate student advisor for Invasive Species specialization of Tropical Agriculture and the Environment undergraduate program (2017-present)

Conference session chair/moderator:

- a. “Pathogen Virulence and Effectors” session of American Phytopathological Society annual meeting at San Antonio, Texas (August 2017)
- b. “Effectors” session of Oomycete Molecular Genetics Network annual meeting at Asilomar, California (March 2017)
- c. “Oomycete Biology” session of Oomycete Molecular Genetics Network annual meeting at Asilomar, California (March 2015)

Committee member of national and international scientific communities:

- a. Steering Committee of Oomycete Molecular Genetics Network (2018-)
- b. Molecular and Cellular Phytopathology Committee the American Phytopathological Society (2014-2016)
- c. Mycology Committee of the American Phytopathological Society (2014-2016).

Grant review panels

- a. USDA NIFA AFRI grant panel (2020)
- b. USDA-ARS project review panel (2022)
- c. USDA-NIFA CBG panel (2022)

Graduate Students

<u>Category</u>	<u>Current Number of Students</u>	<u>Number Graduated (Career)</u>
Chair of Master’s Committees	1	4
Chair of PhD Committees	2	1
Member of Master’s Committees	2	4
Member of PhD Committees	6	2

Grant Support

Tian M. and Christopher D. (08/01/2020-07/31/2022) Genome editing of papaya for functional analysis, metabolic engineering and crop improvement. USDA NIFA, \$299,895.

Manosalva, P., Kim H., Cano L., Schafer B., Crane J., Karen G., **Tian M.** et al. (09/01/2020-08/31/2024) Reducing avocado losses to major challenges by improving resistance selection and disease management using next generation technologies. USDA SCRI, \$4,401,036 (Portion to **Tian M.** and Wages S at UH: \$356,754).

Tian M. (07/01/2020-06/30/2021) Statewide survey for *Fusarium oxysporum* f. sp. *ubense* tropical race 4. USDA APHIS, \$42,385.

Tian M. 2019-2024, Pathogenicity mechanisms and control of economically important plant pathogenic oomycetes, NIFA HATCH project, project no HAW09049-H.

Sipes B., Wang K.H., **Tian M.**, Marahatta S. SEED IDEAS, University of Hawaii at Manoa, \$2000.

Tian M. 2019. Fulbright Outreach Lecturing Fund. \$2,600.

Wang K.H., **Tian M.**, Sugano J., Uyeda J. and Silva J. 2018-2021. Soil health friendly biofumigation using brown mustard and oil radish cover crops for soil-borne disease management. USDA NRCS PIA CIG, \$74,995.

Tian M. 2017-2019. Develop sweet basil varieties resistant to downy mildew via CRISPR/Cas9-mediated gene editing, subaward under USDA-ARS SPECIFIC COOPERATIVE AGREEMENT: Control of Pests and Diseases and Adding Value to Specialty Crops, \$80,000.

Tian M. 2015-2017. Identify the roles of putative effectors in pathogenicity of basil downy mildew pathogen *Peronospora belbahrii*, subaward under USDA-ARS SPECIFIC COOPERATIVE AGREEMENT: Control of Pests and Diseases and Adding Value to Specialty Crops, \$80,000.

Tian M. 2016-2017. Establish a transient gene silencing system to identify genes that play key roles in basil downy

mildew disease development. Intrexon, \$104,138.

Tian M. 2014, 2018. Bench fee from The Royal Golden Jubilee Ph.D. Program and the Strategic Scholarships Fellowships Frontier Research Networks, Thailand, \$9,000.

Tian M. 2018. Fulbright Outreach Lecturing Fund. \$1,900.

Tian M., Uchida J., Sugano J. and Uyeda J. 2014-2015. Developing short-term and long-term measures to manage basil downy mildew, CTAHR Internal Research grant, \$10,000.

Tian M. 2014-2019, Dissecting pathogenesis mechanisms and developing novel strategies to control basil downy mildew, NIFA Hatch project, project no HAW09028-H.

Presentations at Conferences (Since 2014)

Note: Graduate students or researchers under my direct supervision are underlined.

Title: CRISPR/Cas9-mediated mutagenesis of multi-copy sweet basil candidate susceptibility gene *ObDMR6* enhances downy mildew resistance

Authors (put an asterisk on the presenter): Hasley J. A. R.*, **Tian M.**

Name of Conference: Fall Conference of Korean Society of Plant Pathology

Location: on-line

Date of Presentation: Oct 19-21, 2022

Title: Genome informed characterization of a banana *Fusarium* wilt pathogen in Hawaii.

Authors (put an asterisk on the presenter): Shipman, A.K.* , **Tian M.**

Name of Conference: APS annual meeting Plant Health 2022

Location: Pittsburgh, Pennsylvania

Date of Presentation: August 6-10, 2022

Title: A multistate population study of *Phytophthora cinnamomi* and strategies to control avocado phytophthora root rot.

Authors (put an asterisk on the presenter): Hoyt, B.* , Crane, J., Monica N., Gazis R., Cano L., Adhikari A., Tian M., Jifon J., Goenaga R., Adaskaveg J. E., Manosalva P.

Name of Conference: APS annual meeting Plant Health 2022

Location: Pittsburgh, Pennsylvania

Date of Presentation: August 6-10, 2022

Title: Genome editing of papaya through *Agrobacterium*-mediated transformation

Authors (put an asterisk on the presenter): Hasley J. A. R.*, Tian M.

Name of Conference: American Society of Plant Biologists Annual Meeting 2022

Location: Portland, Oregon

Date of Presentation: July 9-13, 2022

Title: CRISPR/Cas9-mediated mutagenesis of multi-copy sweet basil candidate susceptibility gene *ObDMR6* enhances downy mildew resistance

Authors (put an asterisk on the presenter): Hasley J. A. R.*, Tian M.

Name of Conference: American Society of Plant Biologists Annual Meeting 2021

Location: on-line

Date of Presentation: July 19-23, 2021

Title: Dual transcriptome analysis of the susceptible interaction between basil and *Peronospora belbahrii*.

Authors (put an asterisk on the presenter): Johnson E. T.* , Doehring M., Kim H. S., **Tian M.**, Gonda I., and Dudai N.

Name of Conference: American Phytopathological Society Annual Meeting 2021

Location: on-line

Date of Presentation: Aug 2-6, 2021

Title: Development and validation of *Peronospora belbahrii*-specific diagnostic markers.

Authors (put an asterisk on the presenter): Standish J. R.*, Bowman M. J., Childs K. L., **Tian M.**, Quesada L. M.
Name of Conference: American Phytopathological Society Southern Division Annual meeting 2021
Location: on-line
Date of Presentation: Feb 15-19, 2021

Title: Developing a probe-based real-time quantitative PCR assay to detect *Peronospora belbahrii* using species-specific diagnostic markers.
Authors (put an asterisk on the presenter): Standish J. R.*, Bowman M. J., Childs K. L., **Tian M.**, Quesada L. M.
Name of Conference: American Phytopathological Society Annual Meeting 2021
Location: on-line
Date of Presentation: Aug 2-6, 2021

Title: Differential expression of genes encoding sugar transporters in the basil pathogen *Peronospora belbahrii*.
Authors (put an asterisk on the presenter): Johnson E. T.*, Quesada-Ocampo L., Bowman M., Childs K., **Tian M.**
Name of Conference: American Phytopathological Society Annual Meeting 2020
Location: on-line
Date of Presentation: Aug 10-14, 2020

Title: Utilizing comparative genomics to develop species-specific diagnostic markers for basil downy mildew.
Authors (put an asterisk on the presenter): Standish J. R.*, Bowman M. J., Childs K. L., **Tian M.**, Quesada-Ocampo L. M.
Name of Conference: American Phytopathological Society Annual Meeting 2020
Location: on-line
Date of Presentation: Aug 10-14, 2020

Title: Predicting the *Peronospora belbahrii* secretome for *in silico* identification of effector proteins.
Authors (put an asterisk on the presenter): Standish J. R.*, Purayannur S., Bowman M., Childs K., **Tian M.**, and Quesada-Ocampo L. M.
Name of Conference: 97th Annual meeting of American Phytopathological Society Southern Division
Location: Charleston, South Carolina
Date of Presentation: Feb 9-12, 2020

Title: Targeted mutagenesis of basil candidate susceptibility gene DMR1 using CRISPR/Cas9.
Authors (put an asterisk on the presenter): Navet N.*, **Tian M.**
Name of Conference: American Phytopathological Society annual meeting
Location: Cleveland, Ohio
Date of Presentation: 08/06/2019

Title: Dissection of the pathogenicity mechanisms of *Phytophthora palmivora* using CRISPR/Cas9 gene editing
Authors (put an asterisk on the presenter): **Tian M.***
Name of Conference: The Third HOKU (Honolulu Office of Kobe University) Symposium
Location: Honolulu, Hawaii
Date of Presentation: 11/16/2018

Title: A host-specific RxLR effector of *Phytophthora palmivora* contributes to virulence on cacao
Authors (put an asterisk on the presenter): Cai Z., Navet N., Uchida J., and **Tian M.***
Name of Conference: Joint Meeting of the American Phytopathological Society Pacific Division and Conference on Soil-borne Plant Pathogens
Location: Portland, Oregon
Date of Presentation: 06/27/2018

Title: Dissecting the pathogenicity mechanisms of *Phytophthora palmivora*.
Authors (put an asterisk on the presenter): **Tian M.***, Gumtow R., Navet N., Wu D., Schornack S. and Uchida J.
Name of Conference: American Phytopathological Society annual meeting
Location: San Antonio, Texas
Date of Presentation: 08/08/2017

Title: A *Phytophthora palmivora* cystatin-like protease inhibitor targets papain to contribute to virulence on papaya.
Authors (put an asterisk on the presenter): Gumtow R., Wu D., Schornack S., Uchida J., and **Tian M.***
Name of Conference: Oomycete Molecular Genetics Network annual meeting
Location: Asilomar, California
Date of Presentation: 03/12/2017

Title: Functional characterization of a cytoplasmic effector gene highly conserved in plant pathogenic oomycetes.
Authors (put an asterisk on the presenter): Navet N.*, Wu D., Shao D. and **Tian M.**
Name of Conference: Oomycete Molecular Genetics Network annual meeting
Location: Asilomar, California
Date of Presentation: 03/12/2017

Title: Vermicompost tea mediated host plant resistance against root-knot nematodes, *Meloidogyne spp.*
Authors (put an asterisk on the presenter): Mishra S.*, Sipes B. S., **Tian M.** and Wang K. H.
Name of Conference: Society of Nematologists / The Organization of Nematologists of Tropical America annual meeting
Location: Montreal, Canada
Date of Presentation: 2016

Title: Functional characterization of putative effector genes of basil downy mildew pathogen *Peronospora belbahrii*
Authors (put an asterisk on the presenter): Shao D.* and **Tian M.**
Name of Conference: International Society for Molecular Plant-Microbe Interactions XVII Congress
Location: Portland, Oregon
Date of Presentation: 07/20/2016

Title: Establishment of a simple and efficient Agrobacterium-mediated transformation system for *Phytophthora palmivora*
Authors (put an asterisk on the presenter): Wu D., Navet N. and **Tian M.***
Name of Conference: International Society for Molecular Plant-Microbe Interactions XVII Congress
Location: Portland, Oregon
Date of Presentation: 07/20/2016

Title: *De novo* assembly and analysis of transcriptome of *Peronospora belbahrii*
Authors (put an asterisk on the presenter): **Tian M.***, Wu D., and Shao D.
Name of Conference: Oomycete Molecular Genetics Network annual meeting
Location: Asilomar, California.
Date of Presentation: 03/16/2015

Title: Functional characterization of putative extracellular cystatins in *Phytophthora palmivora* pathogenicity on papaya.
Authors (put an asterisk on the presenter): Gumtow R.*, Dragich M., Uchida J., Schornack S., **Tian M.**
Name of Conference: Oomycete Molecular Genetics Network annual meeting
Location: Asilomar, California
Date of Presentation: 03/16/2015

Title: Dissecting the molecular basis of basil *Peronospora belbahrii* interactions.
Authors (put an asterisk on the presenter): Wu D., Win J., Shao D., and **Tian M.***
Name of Conference: American Phytopathological Society annual meeting
Location: Pasadena, California
Date of Presentation: 08/02/2015

Title: Toward understanding the molecular basis of basil-*Peronospora belbahrii* interactions
Authors (put an asterisk on the presenter): **Tian M.***
Name of Conference: CTAHR/Tokyo University of Agriculture and Technology (TUAT) meeting
Location: Honolulu, HI.

Date of Presentation: 05/15/2015