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Associate Professor

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EDUCATION

Ph.D. Biosciences, Jamia Millia Islamia, New Delhi, India

Postgraduate Diploma Bioinformatics, Jamia Hamdard, New Delhi, India

M.S. Molecular Biology & Biotech (Ag.), G. B. Pant University of Agriculture & Technology,
Pantnagar, India

B.S. Agriculture, G. B. Pant University of Agriculture & Technology, Pantnagar, India

PROFESSIONAL APPOINTMENTS

Associate Professor, University of Hawaii, Honolulu, HI, USA, 08/2022 - present

Graduate Faculty of Microbiology (MICR), University of Hawaii, Honolulu, HI, USA, 09/2022 -
present

Graduate Faculty of Molecular Biosciences and Bioengineering (MBBE), University of Hawaii,
Honolulu, HI, USA, 01/2020 - present

Graduate Faculty of Tropical Plant Pathology (TPP), University of Hawaii, Honolulu, HI, USA,
01/2017- present

Assistant Professor, University of Hawaii, Honolulu, HI, USA, 10/2016 – 07/2022

Post-Doctoral Research Associate, Kansas State University, Manhattan, KS, USA, 11/2013 - 10/2016

Visiting Scientist, LaTrobe University, Melbourne, VIC, Australia, 03/2014 - 05/2014

Post-Doctoral Research Associate, Washington State University, Pullman, WA, USA, 11/2012 -
11/2013

Post-Doctoral Research Associate, Oklahoma State University, Stillwater, OK, USA, 02/2009 -
11/2012

Research Associate, Central Rainfed Upland Rice Research Station (CRURRS, CRRI), Hazaribag,
India, 10/2008 – 02/2009

Senior Research Fellow, G. B. Pant University of Agriculture & Technology, Pantnagar, India,
05/2004 - 09/2008

GRANTS FUNDED

- Arif M (PD), Melzer M, Jenkins DM, Neupane K, Ochoa-Corona FM, Ma LM, Espindola A. Cultivating the nextgen of diverse biosecurity professionals through a Pacific-Continental Network (PaCoN). USDA NIFA (**\$7,405,166**; 06/01/2023 – 05/31/2028)
- Amend AS, Arif M (RPL), Haglund EB, Jani AJ, Miller CB. Integrative Center for Environmental Microbiomes and Human Health Phase II. NIH-NIGMS (**\$10,729,794**; 08/01/2023 – 07/31/2028)
- Arif M (PI), Epidemiology, genome biology and evolution of *Ralstonia solanacearum* associated with ironwood decline. McIntire-Steris Integrated Project, USDA-NIFA-CTAHR (**\$135,000**; 10/2023 – 9/2028)
- Arif M (PI). Detection and tracking system for bacterial threats to potato and vegetable industries. USDA-AFRI (**\$295,589**; 03/15/2023 – 03/14/2025)
- Arif M (PI). Advanced diagnostics, evolutionary phylogenomics and interactions of economically important bacterial species affecting tropical crops. USDA-NIFA-CTAHR Hatch (10/2022 – 09/2027)
- Arif M (PI), 'Omics' from source to sink: microbiome of stream irrigation system and its potential impact. NIH-NIGMS COBRE (**\$421,180**; 08/2021 – 07/2023)
- Arif M (PI), Keith L. Genome-informed next-generation detection protocols for pests and pathogens of specialty crops in Hawaii. Specialty Crops PBARC/CTAHR program, USDA-ARS-CTAHR (**\$225,461**; 10/2020 – 09/2024)
- Arif M (PI), Irrigation water microbiome and its impact on the environment and human health. Pilot Project, NIH-NIGMS COBRE Pilot Project (**35,375**; 01/2020 – 10/2020)
- Ochoa-Corona FM, Arif M (Co-PI), Espindola-Camacho A, Malapi-Wight M. EDNA-Bacteria for detection of six Select Agents and quarantine bacteria for the continental U.S. and Hawaii. FARMBILL (USDA/APHIS/PPQ) (**\$159,979**; 10/2020 – 09/2022)
- Khanal S, Arif M (Co-PI), Ho K, Li Y, Silva J, Su W, Sung S. Nanobubble Technology Applications in Aquaculture, Aquaponics, Hydroponics, Environment, Food and Food Safety. Team Science, Office of the Associate Dean/Director for Research, College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa (**\$80,000**; 10/2019 – 9/2020)
- Phytobiome Alliance (PIs: Eversole K, Beattie G, Vinatzer B, Allen C, Arif M, Stulberg M), Genome-based circumscription and phenotyping of regulated microbes, especially the select agent *Ralstonia solanacearum*. FARMBILL (USDA/APHIS/PPQ) (**\$235,086**; 09/2019 – 08/2021)
- Arif M (PI), Costanzo S. Development of molecular methods to detect *Xanthomonas oryzae* pv. *oryzae* and *X. oryzae* pv. *oryzicola*. FARMBILL (USDA/APHIS/PPQ) (**\$95,267**; 09/2019 – 08/2021)
- Schlub RL, Arif M (Co-PI), Husseneder C. Restoring *Casuarina equisetifolia* as an agroforestry species in Guam through replacement of bacterial wilt infected trees and research into bacterial microbiomes and associated termites. USDA-NIFA-WSARE (**\$304,273**; 2019-2022)

- Arif M (PI), Stulberg M. Development of molecular methods to detect *Ralstonia solanacearum* Race3 Biovar2 in field settings. FARMBILL (USDA/APHIS/PPQ) (**\$64,370**; 09/2019 – 08/2021)
- Arif M (PI), Epidemiology, population genetics and comparative genomics of *Ralstonia solanacearum* associated with ironwood disease. McIntire-Steris Integrated Project, USDA-NIFA-CTAHR (**\$125,000**; 10/2018 – 9/2023)
- Arif M (PI), Costanzo S, Stack J. Validation of LAMP for sensitive and reliable detection of the Select Agent, *Rathayibacter toxicus*. USDA/APHIS/PPQ (**\$30,000**; 09/2018 – 08/2019)
- Arif M (PI), Stulberg M. Development of molecular methods to detect *Dickeya* spp. and specifically, *D. solani*. FARMBILL (USDA/APHIS/PPQ) (**\$60,289**; 09/2018 – 08/2019)
- Arif M (PI), Melzer M. Survey of Solanaceous vegetable crops for *Ralstonia solanacearum* r3 b2, Candidatus Phytoplasma australiense in Hawaii. FARMBILL (USDA/APHIS/PPQ) (**\$53,000**; 09/2018 – 08/2019)
- Arif M (PI), Epidemiology, phylogenetics and comparative genomics of *Dickeya* sp. causing diseases of pineapple, corn and taro. Office of the Associate Dean/Director for Research, College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa (**\$80,000**; 10/2017 – 9/2019)
- Arif M (PI), Melzer M. Survey for *Rathayibacter toxicus* and other high consequence bacterial pathogens on annual ryegrass and other grasses of *poaceae* family. CAPS (USDA/APHIS/PPQ) (**\$21,139**; 07/2018 – 06/2019)
- Arif M (PI), Faculty Travel Fund. Office of the Vice Chancellor for Research, University of Hawaii at Manoa (**\$2,000**; 08/2017)
- Arif M (PI), Detection, phylogeny and comparative genomics of important bacterial species of tropics. USDA-NIFA-CTAHR Hatch (**\$66,000**; 10/2017 – 09/2022)

LEADERSHIP, AWARDS & OTHER PROFESSIONAL ACTIVITIES

- Review panellist for NIFA USDA, 09/2021; 08/2022; 11/2023
- *Ad-hoc* reviewer for BARD, 2024
- *Ad-hoc* reviewer for NSF, 2023
- Reviewer for USDA-ARS proposal, 2021
- Review panellist for Pierce's disease proposals, California Department of Food & Agriculture, 03/2018; 03/2019
- Served on University of Hawaii's Tenure and Promotion Review Committee (TPRC), Year 2023
- Recognized as an "Outstanding Associate Editor" for Plant Microbe and Virus Interactions with Plants— Frontiers in Microbiology, Years 2022 & 2023
- Served on Departmental Promotion Committee (DPC), Year 2022 & 2023
- Served as International External Expert for a PhD thesis research, LaTrobe University, Melbourne, Australia, Year 2023
- NextGen PaCoN Seminar Series Coordinator, University of Hawaii at Manoa, 08/2023-present
- Represent Hawaii and Guam in APHIS Widely Prevalent Bacteria Committee, 2018 – present
- CTAHR Senator Executive Committee (SEC) Member and SEC liaison for Research Committee, 08/2022 – present

- Research Advisory Committee (RAC) for Associate Dean of Research, CTAHR, UHM, for the Year 2019-present
- Alternative Responsible Officer (ARO) for the Select Agent Program at the University of Hawaii, 02/2018 – present
- Member of Gamma Sigma Delta, The Honor Society of Agriculture, 2017 - present
- Co-instructor in a training workshop, "Plant Biosecurity in Theory and Practice", Biosecurity Research Institute, Kansas State University, Manhattan, KS, USA. Provided the hands-on biocontainment training to the students/postdocs/scientists from >15 countries every year, Year 2015, 2016, 2017, 2018, 2023, 2024
- Chair, APS Emerging Diseases and Pathogens Committee, 8/2020-8/2021
- Vice-Chair, APS Emerging Diseases and Pathogens Committee, 8/2019-8/2020
- CTAHR Senator, 08/2019 – 07/2021
- TAE Curriculum Committee, Department of Plant Environmental Protection Sciences, University of Hawaii, 08/2017 – 07/2019
- Judge in CTAHR Research Symposium 2017 (PhD poster and Master oral), 2018 (PhD oral and Master poster), 2019 (PhD oral)
- Organized a workshop, "Principles of Diagnostic Assay Validation", American Phytopathological Society Annual Meeting, San Antonio, TX, USA, 08/2017
- Member of Search & Screening Committee for Plant Pathology Department Head, Kansas State University, 2015
- Scholarship Award, Bioinformatics of Entangled Genomes Summer Workshop, Oklahoma State University, USA, 08/2012
- Travel Award, Oomycetes Bioinformatics Resource Workshop, Virginia Tech, Blacksburg, Virginia, USA, 06/2009
- Prof. M. J. Narsimhan Academic Merit Award 2nd Rank, North Zone of India, National Symposium and 60th Annual Meeting of Indian Phytopathological Society, Mahabaleshwar, India, 2008
- Finalist for Indian Science Congress Association (ISCA) Young Scientist Award, Shilong, India, 10/2008
- Finalist for Young Scientist & Student Award, International Biotechnology Symposium, Dalian, China, 10/2008
- MS Merit Scholarship Award, Department of Biotechnology, Govt. of India, 07/2002 – 06/2004
- Scientific Model Competition – Ranked in top 3, G. B. Pant University of Agriculture & Technology, Pantnagar, India, 2003

EDITORIAL ACTIVITIES

- Editor, "Frontiers in Microbiology", 10/2021 - present
- Editorial Board Member, Nature Publishing Group's Journal "Scientific Reports", 05/2019 - present

- Senior Editor, American Phytopathological Society's Journal "Plant Health Progress", 01/2018 – 12/2021
- Guest Editor, Special Issue (Research in the identification and control methods of rot diseases in plants) for "Frontiers in Microbiology", 06/2023 – present
- Guest Editor, Special Issue Volume II (Genome-wide analyses of *Pectobacterium* and *Dickeya* species) for "Frontiers in Plant Sciences", 09/2021 – 04/2023
- Guest Editor, Special Issue (Genome-wide analyses of *Pectobacterium* and *Dickeya* species) for "Frontiers in Plant Sciences", 04/2020 – 02/2021
- Guest Editor, Special Issue (Advances on Bacterial Genomics) for "International Journal of Molecular Sciences", 02/2020 – 06/2021
- Reviewer of Scientific Journals (reviewed > 150 manuscripts): Molecular Plant Pathology, PLoS ONE, Scientific Reports, Nature Communication Biology, Frontiers in Microbiology; Microbial Genomics, Microorganisms, Applied & Environmental Microbiology, Phytopathology, Plant Disease, Journal of Applied Microbiology, Forest Pathology, Plant Pathology, Canadian Journal of Plant Pathology, International Journal of Molecular Sciences, BMC Microbiology, BMC Research Notes, Journal of Phytopathology, Annals of Applied Biology, Current Microbiology, European Journal of Plant Pathology, Plant Health Progress, FEMS Microbiology Letters, Journal of Science of Food & Agriculture, Viruses, International Journal of Microbiology, Natural Product Research, Indian Phytopathology, Letters in Applied Microbiology, Molecular Biology Reports, Phytofrontiers etc.
- Reviewer of Book Proposals, Elsevier and Springer
- Chief Editor of "Spectrum", College of Basic Sciences & Humanities, G. B. Pant University of Agriculture & Technology, Pantnagar, India, 2003-2004

PROFESSIONAL SOCIETIES & MEMBERSHIPS

- American Phytopathological Society (APS)
- The Society for Molecular Biology & Evolution (SMBE)
- American Society for Microbiology (ASM)
- American Association for the Advancement of Science (AAAS)

TEACHING

2017 – current: I teach the following graduate courses at the University of Hawaii at Manoa:

- PEPS 606 Biology of Plant Pathogens: Viruses and Bacteria (Spring)
- PEPS 615L Diagnosis and Management of Tropical Plant Diseases and Pests (Summer)
- PEPS 627/MBBE 627 Molecular Diagnostics: Principles and Practices (Fall)
- PEPS 660 Seminar Tropical Plant Pathology (rotation: approximately once in every 3-4 years)
- PEPS 746 Advanced Plant-Bacterial Interactions (not offered yet)

2010-2012: Assisted in teaching ENTO/PLP 2143 "Global Issues in Agricultural Biosecurity and Microbial Forensics". Taught microbial forensics lab methods. Oklahoma State University, OK, USA

2004-2008: Taught Ph.D. & M.S. students “Molecular Techniques in Plant Pathology” and “Biochemistry of Plant Infection”, G. B. Pant University of Agriculture & Technology, Pantnagar, India

MENTORING & ADVISORY COMMITTEE ROLES

Chair of the advisory committee at the University of Hawaii at Manoa

	Name	Degree	Program	Completion Year or Duration
1.	Stefania Montesinos	PhD	TPP	01/2022 – present
2.	Dario Arizala	PhD	TPP	08/2020 – present
3.	Shu-Cheng Chuang	PhD	TPP	12/2023
4.	Gamze Boluk	PhD	TPP	09/2021
5.	Sayaka Aoki	PhD	TPP	05/2021
6.	Samuel Krakowiak	MS	TPP	01/2024 – present
7.	Derick Syhlman	MS	TPP	01/2024 – present
8.	Santosh Bhandari	MS	TPP	01/2023 – present
9.	Diksha Klair	MS	TPP	08/2022
10.	Sujan Paudel	MS	TPP	08/2020
11.	Dario Arizala	MS	TPP	08/2020
12.	Samudra Gunarathne	MS	TPP	08/2019
13.	Adriana Larrea-Sarmiento	MS	TPP	12/2018

Four new graduate students (Nimisha Maurya, Jaime Wayne, Vanessa Stewart and Cheryl) joining the lab in Fall 2024. TPP-Tropical Plant Pathology.

Member of the advisory committee at the University of Hawaii at Manoa

	Name	Degree	Program	Completion Year or Duration
1.	*Rajib Das	PhD	NS	01/2022 – present
2.	*Sadid Al Amaz	PhD	NS	01/2022 – present
3.	Xupeng Wang	PhD	TPP	01/2021 – present
4.	*Ryan Domingo	PhD	TPSS	01/2021 - present
5.	Roshan Paudel	PhD	TPP	08/2020 – present
6.	Lena Diaz	PhD	MBBE	08/2018 – present
7.	Adriana Larrea-Sarmiento	PhD	TPP	08/2022
8.	Alejandro Olmedo Velarde	PhD	TPP	12/2021
9.	*Francis Sakai-Kawada	PhD	MBBE	07/2020
10.	Ajay Chaudhary	MS	AS	01/2022 – present
11.	Taylor Peterson	MS	AS	12/2023
12.	Ishwora Dhungana	MS	TPSS	07/2020

*Served as the University of Hawaii representative; NS-Nutritional Sciences; TPP-Tropical Plant Pathology; TPSS-Tropical Plant & Soil Sciences; MBBE- Molecular Biosciences and Bioengineering; AS-Animal Sciences.

2017- present: Mentoring undergraduate and research interns at the University of Hawaii at Manoa, Honolulu, HI

- Jimin An, IB Diploma student in Wells International School, Bangkok, 2023
- Veeranan Luthra, IB Diploma student in Wells International School, Bangkok, 2023
- Premyuda Sakkapannikon, IB Diploma student in Wells International School, Bangkok, 2022
- Kanak Pal, UG Student, University of Hawaii at Manoa, 2019 - 2020
- Kayla Caliboso, UG Student, Leeward Community College/UH, 2018 - 2019
- Valeria Alicea-Colon, UG Student, Leeward Community College/UH, 2018 - 2019
- Soumili Kar, IB Diploma student in Wells International School, Bangkok, 2019
- Riddhi Tandon, IB Diploma student in Wells International School, Bangkok, 2019
- Sunand Sethi, IB Diploma student in Wells International School, Bangkok, 2018
- Rishab Tandon, IB Diploma student in Wells International School, Bangkok, 2017

2017- present: Providing training to visiting researchers/scientists at the University of Hawaii at Manoa, Honolulu, HI

- Zohaib Ul Hasan, Korea Research Institute of Standards and Science (KRISS), Daejeon, Republican of Korea, October 2021 – December 2021
- Emily Onefre Perez, Escuela Politécnica Nacional, Quito, Ecuador, March 2020 – May 2020.
- Dr. Sowmya Ramachandran, USDA-ARS, Foreign Disease and Wees Science Unit, Fort Detrick, MD, January – February 2020.

2009-2013: Mentoring and training visiting scientists, graduate students and research interns at Oklahoma State University, OK and Washington State University, Pullman, WA, USA

- Donna Ria Cassi, Sharon Andreason and Ahmed Abd-Elmagid, Ph.D. students in Entomology and Plant Pathology, Oklahoma State University, OK, USA
- Dr. Celia Chalam, Senior Scientist, Division of Plant Quarantine, National Bureau of Plant Genetic Resources (NBPGR), New Delhi, India
- Dr. Denitza Blazheva, Assistant Professor, Department of Microbiology, The University of Food Technologies, Plovdiv, Bulgaria
- Patricia Garrido, Claudia Diaz and Carla Rodriguez, undergraduate students in Biotechnology Engineering, Escuela Politecnica del Ejercito, Ecuador
- Yisel Corriillo, undergraduate student in Biotechnology Engineering, Universidad Francisco de Paula Santander (UFPS), Cúcuta, Norte de Santander, Colombia
- Yaprak Ozakman, undergraduate student, Hacettepe University, Ankara, Turkey
- Stefanny Aguilar Moreno, Abigail Mendoza Yerbafría and Marcos Perez Garcia, undergraduate student, Departamento de Ingenieria Agroindustrial, Universidad Autónoma Chapingo, Chapingo, México
- Jamil Baskett, undergraduate student, Fort Valley State University, Fort Valley, GA, USA
- Krizia-Ivana Udquim, undergraduate student, University of Maryland- Baltimore County, Baltimore, MD, USA

- 2004-08: Mentoring graduate students in research and thesis work at G. B. Pant University of Agriculture & Technology, Pantnagar, India
- Jaypreet Kaur Rayar, Rajeev Ranjan, Santosh Kumar and Jyoti Singh, M.S. students in Molecular Biology & Biotechnology

BOOK CHAPTERS & PROCEEDINGS

1. Charkowski A, **Arif M** (2024). *Pectobacterium*. In Laboratory Guide for Identification of Plant Pathogenic Bacteria, 4th ed, American Phytopathological Society. (In Press)
2. Schlub RL, Ayin CM, Alvarez AM, Paudel S, **Arif M**, Marx BD, Husseneder C, Schlub KA, Quintanilla M, Klopfenstein NB, Kennaway LF, Zhang Y, Zhong C, Nicodemus A (2021). Ecology of Guam's *Casuarina equisetifolia* and research into its decline. Eds. Haruthaithanasan M, Pinyopusarerk K, Nicodemus A, Bush D, Thomson L. Casuarina for green economy and environmental sustainability in Proceedings of the sixth international Casuarina workshop. Krabi, Thailand, October 21-25, 2019.

PEER-REVIEWED PUBLICATIONS

*Corresponding author

2024

1. Arizala D, ***Arif M** (2024). Impact of homologous recombination on core genome evolution and host adaptation of *Pectobacterium parmentieri*. *Genome Biology & Evolution* <https://doi.org/10.1093/gbe/evae032>
2. Chaung SC, Dobhal S, Pal K, Amore TD, Alvarez AM, ***Arif M** (2024). *Xanthomonas* strains isolated from hosts in the Araceae reveal diverse phylogenetic relationships and origins. *Phytopathology* <https://doi.org/10.1094/PHYTO-08-23-0265-R>
3. Chuang S, Dobhal S, Alvarez AM, ***Arif M** (2024). Three new species, *Xanthomonas hawaiiensis* sp. nov., *Stenotrophomonas aracearum* sp. nov., and *Stenotrophomonas oahuensis* sp. nov., isolated from Araceae family. *Frontiers in Microbiology*, doi: 10.3389/fmicb.2024.1356025
4. Dobhal S, Chaung SC, Arizala D, Keith LM, Alvarez AM, ***Arif M** (2024). High-Quality Complete genome sequence of *Xanthomonas phaseoli* pv. *dieffenbachiae* outbreak strain D182: the causative agent of anthurium bacterial blight in Hawai'i. *Phytofrontiers* (in press).
5. Dobhal S, Santillana G, Stulberg MJ, Arizala D, Alvarez AM, ***Arif M** (2024). Development and validation of genome-informed and multigene-based qPCR and LAMP assays for accurate detection of *Dickeya solani*: a critical quarantine pathogen threatening potato industry. *BioRxiv*. doi: <https://doi.org/10.1101/2024.03.21.586178> (submitted to Microbiology Spectrum: under review)
6. Montesinos S, Tyagi G, Feng Z, Hampson E, Adhikari A, Minaai M, Wong L, Haubner M, Dobhal S, Arizala D, Andreason SA, Mollov D, Ochoa-Corona FM, Bingham JP, Odani J, Jenkins D, Ma LM, Fletcher J, Stack JP, ***Arif M** (2024). Genome-guided, field-deployable loop-mediated isothermal amplification (LAMP) assay for specific detection of *Dickeya dadantii*. *BioRxiv*. <https://doi.org/10.1101/2024.05.04.592507> (submitted to Scientific Reports: under review)

7. Marabella M, Howard J, Bhandari S, Do S, Montoya-Pimolwatana M, Dou Y, Dobhal S, Arizala D, Montesinos S, Andreason SA, Ochoa-Corona F, Bingham JP, Odani J, Jenkins D, Ma LM, Fletcher J, Stack JP, ***Arif M** (2024). Loop-mediated Isothermal Amplification (LAMP) assay for reliable detection of *Xanthomonas axonopodis* pv. *vasculorum*. *BioRxiv*. doi: <https://doi.org/10.1101/2024.02.07.579270> (Revision submitted to Scientific Reports).

2023

8. Klair D, Dobhal S, Ahmad A, Hassan ZU, Uyeda J, Silva J, Wang KH, Kim S, Alvarez AM, ***Arif M** (2023). Exploring taxonomic and functional microbiome of Hawaiian stream and spring irrigation water systems using Illumina and Oxford Nanopore sequencing platforms. *Frontiers in Microbiology*. doi: [10.3389/fmicb.2023.1039292](https://doi.org/10.3389/fmicb.2023.1039292)
9. *Czajkowski R, ***Arif M**, *Chapman T (2023). Editorial: Genome-wide analyses of *Pectobacterium* and *Dickeya* species, volume II. *Frontiers in Plant Science*. doi: [10.3389/fpls.2023.1224293](https://doi.org/10.3389/fpls.2023.1224293)
10. Paudel S, Dobhal S, Lowe-Power T, Schlub RL, Hu J, Caitilyn A, Alvarez AM, ***Arif M** (2023). "RSSC-Lineage Multiplex PCR" assay detects and differentiates *Ralstonia solanacearum*, *R. pseudosolanacearum*, *R. syzygii* and the R3bv2 subgroup. *Phytofrontiers*. doi: <https://doi.org/10.1094/PHYTOFR-07-23-0087-R>
11. Growth-Helms D, Rivera Y, Martin FN, **Arif M**, Sharma P, Castlebury LA (2023). Terminology and guidelines for diagnostic assay development and validation: A proposal for best practices. *Phytofrontiers*. doi: [10.1094/PHYTOFR-05-22-0059-FI](https://doi.org/10.1094/PHYTOFR-05-22-0059-FI)
12. Lowe-Power T, Sharma P, Alfenas-Zerbini P, Alvarez B, **Arif M**, Baroukh C, Biosca EG, Bocsanczy AM, Castillo J, Cellier G, Coutinho TA, Drenth A, Friman VP, Genin S, Guidot A, Hikichi Y, Huang Q, Iyer-Pascuzzi AS, Kai K, Pecrix Y, Poussier S, Ray JD, Rossato M, Schomer RA, Siri MI, Vinatzer B, Allen C (2023). Letter to the Editor: The *Ralstonia* research community rejects the proposal to classify phylotype I *Ralstonia* into the new species *Ralstonia nicotianae*. *Phytofrontiers*. doi: <https://doi.org/10.1094/PHYTOFR-06-23-0071-LE>

2022

13. ***Arif M**, Czajkowski R, Chapman T (2022). Editorial: Genome-wide analyses of *Pectobacterium* and *Dickeya* species. *Frontiers in Plant Science*. doi: [10.3389/fpls.2022.822829](https://doi.org/10.3389/fpls.2022.822829)
14. Zhang J, ***Arif M**, Shen H, Sun D, Pu X, Hu J, Lin B, Yang Q (2022). Genomic comparisons and phenotypic diversity of *Dickeya zea* strains causing bacterial soft rot of banana in China. *Frontiers in Plant Science*, 13:822829. doi: [10.3389/fpls.2022.822829](https://doi.org/10.3389/fpls.2022.822829)
15. DeLude A, Wells R, Boomla S, Chuang S, Urena F, Shipman A, Rubas N, Kuehu DL, Bickerton B, Peterson T, Dobhal S, Arizala D, Klair D, Ochoa-Corona FM, Ali ME, Odani J, Bingham JP, Jenkins D, Fletcher J, Stack JP, Alvarez AM, ***Arif M** (2022). Loop-mediated isothermal amplification (LAMP) assay for specific and rapid detection of *Dickeya fangzhongdai* targeting a unique genomic region. *Scientific Reports*, 12:19193, doi: [10.1038/s41598-022-22023-4](https://doi.org/10.1038/s41598-022-22023-4)
16. Klair D, Arizala D, Dobhal S, Boluk G, Alvarez AM, ***Arif M** (2022). *Pectobacterium colocasium* sp. nov. isolated from taro (*Colocasia esculenta*). *BioRxiv*. doi: [10.1101/2022.02.08.479620](https://doi.org/10.1101/2022.02.08.479620)
17. Arizala D, Dobhal S, Alvarez AM, ***Arif M** (2022). Elevation of *Clavibacter michiganensis* subsp. *californiensis* to species level as *Clavibacter californiensis* sp. nov., merging and re-classification

of *Clavibacter michiganensis* subsp. *chilensis* and *Clavibacter michiganensis* subsp. *phaseoli* as *Clavibacter phaseoli* sp. nov. based on complete genome in silico analyses. *Int J Syst Evol Microbiol*, 72(9), doi: 10.1099/ijsem.0.005427

18. Boluk G, Dobhal S, Arizala D, Alvarez AM, *Arif M (2022). *Dickeya colocasiae* sp. nov. isolated from wetland taro, *Colocasia esculentum*. *BioRxiv*. Doi:10.1101/2022.01.14.476417
19. Arizala D, Dobhal S, Babler B, Crockford A, Rioux RA, Alvarez AM, *Arif M (2022). Development of a multiplex TaqMan qPCR targeting unique genomic regions for the specific and sensitive detection of *Pectobacterium* species and *P. parmentieri*. *J Appl Microbiol*, 132(4), 3089-3110. doi.org/10.1111/jam.15447

2021

20. Boluk G, Arizala D, Dobhal S, Zhang J, Hu J, Alvarez AM, *Arif M (2021). Genomic and phenotypic biology of novel strains of *Dickeya zea* isolated from pineapple and taro in Hawaii: insights into genome plasticity, pathogenicity, and virulence determinants. *Frontiers in Plant Science*. doi:10.3389/fpls.2021.663851
21. Domingo R, Perez C, Klair D, Vu H, Candelaria-Tochiki A, Wang X, Camson A, Uy JN, Salameh M, Arizala D, Dobhal S, Boluk G, Bingham JP, Ochoa-Corona F, Ali ME, Stack JP, Fletcher J, Odani J, Jenkins D, Alvarez AM, *Arif M (2021). Genome-informed loop-mediated isothermal amplification assay for specific detection of *Pectobacterium parmentieri* in infected potato tissues and soil. *Scientific Reports*, 11, 21948. doi.org/10.1038/s41598-021-01196-4
22. Arif M, Busot GY, Mann R, Rodoni B, Stack JP (2021). Field-deployable recombinase polymerase amplification assay for specific, sensitive and rapid detection of the US Select Agent and toxigenic bacterium, *Rathayibacter toxicus*. *Biology*, 10, 620. doi.org/10.3390/biology10070620
23. Larrea-Sarmiento A, Stack JP, Alvarez AM, *Arif M (2021). Multiplex recombinase polymerase amplification assay developed using unique genomic regions for rapid on-site detection of genus *Clavibacter* and *C. nebraskensis*. *Scientific Reports*, 11, 12017. doi.org/10.1038/s41598-021-91336-7
24. Klair D, Silva J, Arizala D, Boluk G, Dobhal S, Ahmad A, Uyeda J, Alvarez AM, *Arif M (2021). First Report of *Pectobacterium brasiliense* causing soft rot on mizuna (*Brassica rapa* var. *japonica*) in the United States. *Plant Dis*. doi.org/10.1094/PDIS-03-21-0644-PDN
25. Arif M, Busot GY, Mann R, Rodoni B, Stack JP (2021). Multiple internal controls enhance reliability for PCR and real time PCR detection of *Rathayibacter toxicus*. *Scientific Reports*, 11, 8365; doi.org/10.1038/s41598-021-87815-6
26. Klair D, Boluk G, Silva J, Arizala D, Dobhal S, *Arif M (2021). First report of bacterial soft rot disease on pak choi (*Brassica rapa* subsp. *chinensis*) caused by *Pectobacterium brasiliense* in the United States. *Plant Dis*. doi.org/10.1094/PDIS-08-20-1854-PDN
27. Ramachandran S, Dobhal S, Alvarez AM, *Arif M (2021). Improved multiplex TaqMan qPCR assay with universal internal control offers reliable and accurate detection of *Clavibacter michiganensis*. *J Appl Microbiol*, doi.org/10.1111/jam.15017

2020

28. Paudel S, Dobhal S, Alvarez AM, ***Arif M** (2020). Taxonomy and phylogenetic research on *Ralstonia solanacearum*: a complex pathogen with extraordinary economic consequences. *Pathogens*, 9, 886; doi.org/10.3390/pathogens9110886
29. Zhang J, **Arif M**, Shen H, Hu J, Sun D, Pu X, Yang Q, Lin B (2020). Genomic divergence between *Dickeya zae* strain EC2 isolated from rice and previously identified strains, suggests a different rice foot rot strain. *PLoS ONE* 15(10), e0240908. doi.org/10.1371/journal.pone.0240908
30. Yasuhara-Bell J, **Arif M**, Busot G, Mann R, Rodoni B, Stack J (2020). Comparative genomic analysis confirms five genetic populations of the Select Agent, *Rathayibacter toxicus*. *Microorganisms* 8, 366; doi:10.3390/microorganisms8030366
31. Andreason SA, **Arif M**, Brown JK, Ochoa-Corona F, Fletcher J, Wayadande A (2020). Exploring the use of high-resolution melting analysis and helicase-dependent amplification for discrimination of *Bemisia tabaci* (Hemiptera: Aleyrodidae) cryptic species and *Trialeurodes vaporariorum*, *J Econ Entomol*, doi.org/10.1093/jee/toaa180
32. Boluk G, Arizala D, Ocenar J, Mokwele J, Silva J, Dobhal S, Uyeda J, Alvarez AM, ***Arif M** (2020). First report of *Pectobacterium brasiliense* causing soft rot on *Brassica oleracea* var. *sabellica* L. in Hawaii, United States. *Plant Dis*. doi.org/10.1094/PDIS-04-20-0701-PDN
33. Arizala D, Dobhal S, Paudel S, Boluk G, Silva J, Ahmad AA, Uyeda J, Sugano J, Alvarez AM, ***Arif M** (2020). First report of *Pectobacterium brasiliense* causing bacterial soft rot and blackleg diseases of potato in Hawaii. *Plant Disease*, doi.org/10.1094/PDIS-02-20-0395-PDN
34. Dobhal S, Boluk G, Babler B, Stulberg MJ, Rascoe J, Nakhla M, Chapman T, Crockford AB, Melzer M, Alvarez AM, ***Arif M** (2020). Comparative genomics approach for identifying signature regions to develop a robust and highly reliable multiplex TaqMan real-time qPCR assay for sensitive detection of the genus *Dickeya* and *Dickeya dianthicola*. *J Appl Microbiol*, doi.org/10.1111/jam.14579
35. Boluk G, Dobhal S, Crockford AB, Melzer MJ, Alvarez AM, ***Arif M** (2020). Genome-informed recombinase polymerase amplification assay coupled with a lateral flow device for in-field detection of *Dickeya* species. *Plant Disease*. doi.org/10.1094/PDIS-09-19-1988-RE

2019

36. Arizala D, ***Arif M** (2019). Genome-wide analyses revealed remarkable heterogeneity in pathogenicity determinants, antimicrobial compounds, and CRISPR-Cas systems of complex phytopathogenic genus *Pectobacterium*. *Pathogens*, 8, 247, doi:10.3390/pathogens8040247
37. Arizala D, Dobhal S, Paudel S, Gunarathne S, Boluk G, ***Arif M** (2019). First report of bacterial soft rot and blackleg on potato caused by *Pectobacterium parmentieri* in Hawaii. *Plant Disease*. doi.org/10.1094/PDIS-09-19-1894-PDN
38. Dhakal U, Dobhal S, Alvarez AM, ***Arif M** (2019). Phylogenetic analyses of xanthomonads causing bacterial leaf spot of tomato and pepper: *Xanthomonas euvesicatoria* revealed homologous populations despite distant geographical distribution. *Microorganisms*, 7, 462, doi:10.3390/microorganisms7100462
39. Larrea-Sarmiento A, Alvarez AM, Stack JP, ***Arif M** (2019). Synergetic effect of non-complementary 5' AT-rich sequences on the development of a multiplex TaqMan real-time

PCR for specific and robust detection of *Clavibacter michiganensis* and *C. michiganensis* subsp. *nebraskensis*. *PLoS ONE* 14(7):e0218530, doi.org/10.1371/journal.pone.0218530

40. Ocenar J, Arizala D, Boluk G, Dhakal U, Gunarathne S, Paudel S, Dobhal S, ***Arif M** (2019). Development of a robust, field-deployable loop-mediated isothermal amplification (LAMP) assay for specific detection of potato pathogen *Dickeya dianthicola* targeting a unique genomic region. *PLoS ONE*, 14 (6): e0218868, doi.org/10.1371/journal.pone.0218868
41. Dobhal S, Larrea-Sarmiento A, Alvarez A, ***Arif M** (2019). Development of a loop-mediated isothermal amplification assay for specific detection of all known subspecies of *Clavibacter michiganensis*. *J Appl Microbiol*, 126, 388-401. DOI: 10.1111/jam.14128
42. Boluk G, ***Arif M** (2019). First report of *Dickeya dianthicola* as a causal agent of bacterial soft rot of potato in Hawaii. *Plant Disease*, doi.org/10.1094/PDIS-11-18-2094-PDN

2018

43. Ahmed F, Larrea-Sarmiento A, Alvarez A, ***Arif M** (2018). Genome-informed diagnostics for specific and rapid detection of *Pectobacterium* species using recombinase polymerase amplification coupled with a lateral flow device. *Scientific Reports*, 8, 15972. DOI: 10.1038/s41598-018-34275-0.
44. Larrea-Sarmiento A, Dhakal U, Boluk G, Fatdal L, Alvarez A, Strayer A, Paret M, Jones J, Jenkins D, ***Arif M** (2018). Development of a genome-informed loop-mediated isothermal amplification assay for rapid and specific detection of *Xanthomonas euvesicatoria*. *Scientific Reports*, 8, 14298. DOI:10.1038/s41598-018-32295-4
45. Hynson N, Frank K, Alegado R, Amend A, **Arif M**, Bennett G, Jani A, Medeiros M, Mileyko Y, Nelson C, Nguyen N, Nigro O, Priscic S, Takagi D, Wilson S, Yew J, Shin S (2017). Synergy among microbiota and their hosts: leveraging the Hawaiian archipelago and local collaborative networks to address pressing questions in microbiome research. *mSystems*, 3, e00159-17

2017

46. Ahmed FA, **Arif M**, Alvarez AM (2017). Antibacterial effect of potassium tetraborate tetrahydrate against soft rot disease agent *Pectobacterium carotovorum* in tomato. *Front Microbiol*, 8, 1728. doi: 10.3389/fmicb.2017.01728
47. Yasuhara-Bell J, Marrero G, **Arif M**, de Silva A, Alvarez AM (2017). Development of a loop-mediated isothermal amplification (LAMP) assay for the detection of *Dickeya* spp. *Phytopathology*, 107 (11), 1339-1345. doi.org/10.1094/PHYTO-04-17-0160-R
48. Andreason SA, **Arif M**, Brown JK, Ochoa-Corona F, Fletcher J, Wayadande A (2017). Single-target and multiplex discrimination of whiteflies (Hemiptera: Aleyrodidae) *Bemisia tabaci* and *Trialeurodes vaporariorum* with modified priming oligonucleotide thermodynamics, *J Econ Entomol*, 110 (4), 1821-1830. doi: 10.1093/jee/tox125

2016

49. **Arif M**, Busot GY, Mann R, Rodoni B, Liu S, Stack JP (2016). Emergence of a new population of *Rathayibacter toxicus*: an ecologically complex, geographically isolated bacterium. *PLoS ONE*, 11(5), e0156182

50. Dobhal S, Olsen J, **Arif M**, Garcia-Suarez JA, Ochoa-Corona FM (2016). A simplified strategy for sensitive detection of *Rose rosette virus* compatible with three RT-PCR chemistries. *J Virol Methods*, 232, 47-56

2015

51. **Arif M**, Opit G, Yerbafría A, Dobhal S, Li Z, Kucerova Z, Ochoa-Corona FM (2015). Array of synthetic oligonucleotides to generate unique multi target artificial positive control and molecular probes-based discrimination of *Liposcelis* species. *PLoS ONE*, 10(6), e0129810
52. **Arif M**, Zaidi NW, Haq QMR, Singh YP, Taj G, Kar CS, Singh US (2015). Morphological and comparative genomic analysis of pathogenic and non-pathogenic *Fusarium solani* isolated from *Dalbergia sissoo*. *Mol Biol Rep*, 42 (6), 1107-1122
53. Rayar JK, **Arif M**, Singh US (2015). Relative efficiency of RAPD and ISSR markers in assessment of DNA polymorphism and genetic diversity among *Pseudomonas* strains. *Afr J Biotech*, 14 (13), 1096-1106
54. Dobhal S, **Arif M**, Olsen J, Mendoza-Yerbafría A, Aguilar-Moreno GS, Perez-Garcia M, Ochoa-Corona FM (2015). Sensitive detection and discrimination method for studying multiple infections of five major plant viruses infecting ornamental plants in nursery environments. *Ann Appl Biol*, 166, 286-296

2014

55. **Arif M**, Aguilar-Moreno GS, Wayadande A, Fletcher J, Ochoa-Corona FM (2014) Primer modification improves rapid and sensitive *in vitro* and field deployable assays for detection of High plains virus variants. *Applied & Environmental Microbiology*, 80 (1), 320-327
56. **Arif M**, Dobhal S, Garrido PA, Orquera GK, Epindola A, Young CA, Ochoa-Corona FM, Marek SM, Garzon CD (2014) Highly sensitive end-point PCR and SYBR Green qPCR detection of *Phymatotrichopsis omnivora*, causal fungus of cotton root rot. *Plant Disease*, 98 (9), 1205-1212

2013

57. **Arif M**, Zaidi NW, Haq QMR, Singh YP, Khan S, Singh US (2013) Molecular phylogeny and pathotyping of *Fusarium solani*: a causal agent of *Dalbergia sissoo* decline. *Forest Pathology*, 43 (6), 478-487
58. **Arif M**, Fletcher J, Marek S, Melcher U, Ochoa-Corona FM (2013) Development of a rapid, sensitive and field deployable Razor Ex BioDetection System and qPCR assay for detection of *Phymatotrichopsis omnivora* using multiple gene targets. *Applied & Environmental Microbiology*, 79 (7), 2312-2320
59. *Ouyang P, ***Arif M**, Fletcher J, Melcher U, Ochoa-Corona FM (2013) Enhanced reliability and accuracy for field deployable bioforensic detection and discrimination of *Xylella fastidiosa* subsp. *pauca*, causal agent of citrus variegated chlorosis using Razor Ex technology and TaqMan quantitative PCR. *PLoS ONE*, 8 (11), e81647. *Both authors contributed equally
60. **Arif M**, Ochoa-Corona FM (2013) Comparative assessment of 5' A/T-rich overhang sequences with optimal and sub-optimal primers to increase PCR yields and sensitivity. *Molecular Biotechnology*, 55 (1), 17-26

61. Cassi DRJ, **Arif M**, Payton M, Melcher U, Winder L, Ochoa-Corona FM (2013) A multi-target, non-infectious and clonable artificial positive control for routine PCR-based assays. *Journal of Microbiological Methods*, 95 (2), 229-234

2012

62. **Arif M**, Ochoa-Corona FM, Opit G, Li ZH, Kučerová Z, Stejskal V, Yang QQ (2012) PCR and isothermal-based molecular identification of the stored-product psocid pest *Lepinotus reticulatus* (Psocoptera: Trogiidae). *Journal of Stored Products Research*, 49, 184-188
63. ***Arif M**, Chawla S, Zaidi NW, Rayar JK, Variar M, Singh US (2012) Development of specific primers for genus *Fusarium* and *F. solani* using rDNA sub-unit and transcription elongation factor (TEF-1 α) gene. *African Journal of Biotechnology*, 11 (2), 444-447

2011

64. ***Arif M**, Pani DR, Zaidi NW, Singh US (2011) PCR based identification and characterization of *Fusarium* sp. associated with mango malformation. *Biotechnology Research International*, 2011, 1-6, doi:10.4061/2011/141649

2009

65. **Arif M**, Zaidi NW, Singh YP, Haq QMR, Singh US (2009) A comparative analysis of ISSR and RAPD markers for study of genetic diversity in shisham (*Dalbergia sissoo*). *Plant Molecular Biology Reporter*, 27(4), 488-495
66. Arocha Y, Singh A, Pandey M, Tripathi AN, Chandra B, Shukla SK, Singh Y, Kumar A, Srivastava RK, Zaidi NW, **Arif M** et al. (2009) New plant hosts for group 16SrII, 'Candidatus *Phytoplasma aurantifolia*', in India. *Plant Pathology*, 58, 391
67. Ahmad J, **Arif M**, Bhajan R, Khan G (2009) Assessment of genetic diversity and genetic relationships among twenty varieties of *Brassica juncea* L. using RAPD markers. *International Journal of Biotechnology & Biochemistry*, 5(1), 85-92
68. **Arif M**, Zaidi NW, Haq QMR, Shukla SK (2009) Shisham wilt: A threatening deforester. *Farmers Digest*, 42 (3), 30-35

2008

69. **Arif M**, Zaidi NW, Haq QMR, Singh US (2008) Genetic variability within *Fusarium solani* as revealed by PCR- fingerprinting based on ISSR markers, *Indian Phytopathology*, 61(3), 305-310
70. **Arif M**, Haq QMR, Zaidi NW, Singh US (2008) Molecular diversity in *Fusarium solani* associated with sissoo (*Dalbergia sissoo*) wilt assessed by RAPD DNA markers. *Journal of Mycology & Plant Pathology*, 38(2), 258-260
71. Bhatt R, ***Arif M**, Gaur AK, Rao PB (2008) *Rauwolfia serpentina*: Protocol optimization for *in vitro* propagation. *African Journal of Biotechnology*, 7(23), 4265-4268
72. Pani DR, **Arif M**, Khan G, Kar CS and Singh US (2008) Random amplified polymorphic DNA analysis of indigenous small and medium-grained scented rices (*Oryza sativa* L.) of Orissa. *Indian Journal of Genetics*, 68(4), 360-365

2007

73. Yadav AK, Pani DR, **Arif M**, Satpathy S, Shukla SK, Singh US (2007) Role of protein in kernel elongation after cooking in aromatic rice. *Oryza*, 44(3), 200-204

Presentations in Scientific Meetings

*Presenting author

2024

1. ***Arif M**, Dobhal S, Ma LM, Stack JP (2024). Emerging strains and their multi-trophic interactions threatening food safety and biosecurity (presenting at the XX International Plant Protection Congress in Athens, Greece).
2. ***Arif M**, Stack JP, Dobhal S, Bingham J-P, Fletcher J (2024). Fostering research in graduate teaching: the excitement of transforming theoretical foundations into peer-reviewed publications. (presenting at the APS Plant Health 2024, July 27-30, Memphis, Tennessee).
3. ***Dobhal S, Ma LM, Arif M** (2024). Deciphering the dynamics of attachment and internalization of mScarlet-I labelled (Chromosomally Integrated) *S. enterica* Oranienburg and shiga toxin-producing *E. coli* O157:H7 (STEC) in kale (presenting at the International Association for Food Protection, July 14-17, 2024, California).
4. ***Bhandari S, Arif M, Ma LM, Dobhal S.** (2024). Multi-trophic interactions between soft rot-causing bacteria, foodborne pathogen, and their host plant. (presenting at the APS Plant Health 2024, July 27-30, Memphis, Tennessee).
5. ***Syhlman D, Arizala D, Dobhal S, Alvarez AM, Arif M** (2024). Pan-genome analysis reveals a high diversity in the chromosome and megaplasmid of *Ralstonia pseudosolanacearum*. (presenting at the APS Plant Health 2024, July 27-30, Memphis, Tennessee).
6. ***Bhandari S, Marabella M, Howard J, Do S, Montoya-Pimolwatana M, Dou Y, Arizala D, Montesinos S, Dobhal S, Arif M** (2024). Loop-mediated Isothermal Amplification (LAMP) assay for reliable detection of *Xanthomonas axonopodis* pv. *vasculorum*. (presenting at the APS Plant Health 2024, July 27-30, Memphis, Tennessee).
7. ***Krakowiak S, Dobhal S, Arif M** (2024). Genomic Insights into *Xanthomonas axonopodis* pv. *vasculorum*: causative agent of sugarcane gumming disease. (presenting at the APS Plant Health 2024, July 27-30, Memphis, Tennessee).

2023

8. ***Arif M**, Stack JP (2023). Advancement in plant pathogen diagnostics in high-throughput sequencing era. (ICPP 2023, Lyon, France).
9. ***Dobhal S, Arizala D, Boluk G, Arif M** (2023). Interactions and genome biology of *Dickeya fangzhongdai*. A potential threat to potato industry. (ICPP 2023, Lyon, France).
10. ***Boluk G, Arizala D, Dobhal S, Alvarez AM, Arif M** (2023). Genomic and phenotypic biology of novel strains of *Dickeya zea*. (ICPP 2023, Lyon, France).
11. ***Montesinos S, D, Dobhal S, Arif M** (2023). BacPath: Diagnostics pipeline for highly reliable detection of bacterial plant pathogens. (APS Annual Meeting - Plant Health 2023, Denver, Co).
12. ***Arif M, Arizala D, Larrea-Sarmiento A, Dobhal S** (2023). Genome biology and evolution of *Clavibacter michiganensis*. (ICPP 2023, Lyon, France).

13. *Chuang SC, Dobhal S, Alvarez AM, **Arif M** (2023). Three new species, *Xanthomonas hawaiiensis* sp. nov., *Stenotrophomonas aracearum* sp. nov., and *Stenotrophomonas oahuensis* sp. nov., isolated from Araceae. (APS Annual Meeting - Plant Health 2023, Denver, Co).
14. *Dobhal S, **Arif M** (2023). Development of recombinase polymerase amplification assays for specific detection of *Xanthomonas oryzae* pv. *oryzae* and *Xanthomonas oryzae* pv. *oryzicola*. (ICPP 2023, Lyon, France).
15. Klair D, Dobhal S, *Montesinos S, Delorm J, Schlub R, Alvarez AM, **Arif M** (2023). *Ralstonia* infection in ironwood trees negatively impacts the diversity of the endophytic microbiome. (APS Annual Meeting - Plant Health 2023, Denver, Co).
16. *Chuang S.C., Dobhal S., Alvarez AM, **Arif M** (2023). Comparative genomic analyses revealed flagellar biosynthesis as a key virulence factor in the *Xanthomonas euvesicatoria*-panax pathosystem. (APS Annual Meeting - Plant Health 2023, Denver, Co).
17. *Montesinos S, Tyagi G, Feng Z, Hampson E, Adhikari A, Minaai M, Wong L, Haubner M, Arizala D, Dobhal S, **Arif M** (2023). Genome-Informed Loop-Mediated Isothermal Amplification (LAMP) Assay for Rapid and Specific Detection of *Dickeya dadantii*. (APS Annual Meeting - Plant Health 2023, Denver, Co).

2022

18. Klair D, Dobhal S, ***Arif M** (2022). Taxonomic and functional microbiome analyses of stream and spring irrigation water systems using illumina and nanopore sequencing platforms. (APS Annual Meeting 2022, Pittsburgh, PA).
19. *Arizala D, **Arif M** (2022). Homologous recombination in core genomes impacts phylogeny, virulence, and host adaptation of *Pectobacterium parmentieri*. (APS Annual Meeting 2022, Pittsburgh, PA).

2021

20. ***Arif M** (2021). The future of plant diagnostics and disease surveillance (part 2). ("SPECIAL SESSION": APS Annual Meeting 2021, virtual).
21. *Arizala D, Dobhal S, Alvarez AM, **Arif M** (2021). Comparative genomics and phylogenetic analyses suggest a taxonomic re-organization and inclusion of a new species in the genus *Clavibacter*. (APS Annual Meeting 2021, Virtual).
22. Paudel S, Dobhal S, Hu J, Schlub R, Alvarez AM, ***Arif M** (2021). Phylogenetic characterization and genealogy of strains in the *Ralstonia solanacearum* species complex associated with ironwood decline in Guam (APS Annual Meeting 2021, Virtual).
23. *Klair D, Dobhal S, Ahmad A, Uyeda J, Silva J, Alvarez AM, **Arif M** (2021). Investigating microbial communities associated with source irrigation and wet taro field water using amplicon Oxford Nanopore Minlon sequencing. (APS Annual Meeting 2021, Virtual).
24. *Chuang S, Dobhal S, Pal K, Amore TD, Alvarez AM, **Arif M** (2021). *Xanthomonas* strains isolated from Araceae reveal diverse phylogenetic relationships and origins. (APS Annual Meeting 2021, Virtual).
25. *Dobhal S, Costanzo S, Paudel S, Stulberg MJ, Rivera Y, Nakhla MK, Alvarez AM, **Arif M** (2021). Multiplex real-time PCR assay for detection and discrimination of *Ralstonia solanacearum*

- R3bv2 from other strains in *R. solanacearum* species complex" (APS Annual Meeting 2021, Virtual).
26. *Chuang S, Dobhal S, Alvarez AM, **Arif M** (2021). Pathological and molecular biology of *Xanthomonas* strains causing bacterial leaf blight of Panax (*Polyscias guilfoylei*) in Hawaii. (APS Annual Meeting 2021, Virtual).
 27. *Klair D, Domingo R, Perez C, Huong V, Candelario-Tochiki A, Wang S, Camson A, Uy JN, Salameh M, Arizala D, Boluk G, Dobhal S, **Arif M** (2021). Development of loop-mediated isothermal amplification assay for rapid detection of *Pectobacterium parmentieri* in infected potato and soil samples. (APS Annual Meeting 2021, Virtual).
 28. *Shrestha S, Babler B, Dobhal S, **Arif M**, Rioux R (2021) Recovery of potato blackleg pathogens and impact of temperature on interactions between *Pectobacterium parmentieri* and *Dickeya dianthicola*. (APS Annual Meeting 2021, Virtual).

2020

29. *Arizala D, Dobhal S, Paudel S, Seo HN, Alvarez AM, **Arif M** (2020). Evolutionary genomics reveals recombination events involved in speciation, host specificity and pathogenicity in the genus *Clavibacter* (Abstract; APS Annual Meeting, Virtual).
30. *Dobhal S, Boluk G, Arizala D, Alvarez AM, **Arif M** (2020). Multitrophic interactions of chromosomally labelled *Pectobacterium* and *Dickeya* species with their host and analysis of pathogenicity determinants (Abstract; APS Annual Meeting, Virtual).
31. *Dobhal S, Santillana G, Stulberg MJ, Boluk G, Rascoe J, Nakhla MK, Alvarez AM, **Arif M** (2020). Multigene based TaqMan qPCR multiplex assay for sensitive and reliable detection of *Dickeya solani* (Abstract; APS Annual Meeting, Virtual).
32. *Boluk G, Arizala D, Dobhal S, Alvarez AM, **Arif M** (2020). Comparative Genomics analyses revealed distinct pathogenicity determinants and distinct features between *Dickeya zea* strains from taro and pineapple (Abstract; APS Annual Meeting, Virtual).
33. *Dobhal S, Paudel S, Stulberg MJ, Rascoe J, Nakhla MK, Alvarez AM, **Arif M** (2020). A unique region revealed through genome-wide analyses was used to develop an RPA assay for detection of the Select Agent *Ralstonia solanacearum* R3bv2 (Abstract; APS Annual Meeting, Virtual).
34. *Boluk G, Dobhal S, Alvarez AM, **Arif M** (2020). Complete genomic analysis of plant-pathogenic *Pectobacterium* species found associated with soft rot disease of kale (Abstract; APS Annual Meeting, Virtual).
35. *Paudel S, Dobhal S, Stulberg MJ, Rascoe J, Nakhla MK, Seo HN, Schlub RL, Alvarez AM, **Arif M** (2020). Field deployable recombinase polymerase amplification assay for rapid and accurate detection of *Ralstonia solanacearum* species complex (Abstract; APS Annual Meeting, Virtual).
36. *Dobhal S, Arizala D, Chuang SC, Pal K, Amore TD, Alvarez AM, **Arif M** (2020). Comparative genomics analyses of the bacterial blight pathogen of anthurium, *Xanthomonas phaseoli* pv. *dieffenbachiae* (Abstract; APS Annual Meeting, Virtual).
37. *Paudel S, Dobhal S, Lowe-Power T, Schlub RL, Allen C, Alvarez AM, **Arif M** (2020). PCR multiplex to differentiate *Ralstonia solanacearum* species complex, including *R. solanacearum*,

R. pseudosolanacearum and Select Agent R3bv2 strains (Abstract; APS Annual Meeting, Virtual).

38. *Boluk G, Dobhal S, Alvarez AM, **Arif M** (2020). Evolutionary relationships and phylogeny of *Dickeya zea* strains based on phenotypic, biochemical and genomic characteristics (Abstract; APS Annual Meeting, Virtual).

2019

39. ***Arif M** (2019). One Lab - One Protocol: synergetic effect of 5'AT-rich flap to harmonize qPCR protocols for easy, sensitive and cost-effective diagnostics (Abstract; APS Annual Meeting, Cleveland, OH).
40. *Larrea A, Dobhal S, Alvarez A, **Arif M** (2019). Insights into pathogenicity determinants of *Clavibacter michiganensis* subsp. *michiganensis* and their effects on disease expression (Abstract; APS Annual Meeting, Cleveland, OH).
41. *Arizala D, **Arif M** (2019). Comparative genomics of *Pectobacterium* species revealed remarkable heterogeneity in pathogenicity determinants, antimicrobial compounds and CRISPR Cas (Abstract; APS Annual Meeting, Cleveland, OH).
42. Dobhal S, *Boluk G, Babler B, Stulberg MJ, Rascoe J, Nakhla M, Chapman T, Crockford AB, Melzer M, Alvarez AM, **Arif M** (2019). Comparative genomics approach to develop a highly reliable duplex TaqMan qPCR assay for sensitive detection of genus *Dickeya* and *Dickeya dianthicola* (Abstract; APS Annual Meeting, Cleveland, OH).
43. *Boluk G, Dobhal S, Alvarez A, **Arif M** (2019). Phylogeny of *Dickeya zea* isolated from different hosts and irrigation water using multi-locus sequence analysis (Abstract; APS Annual Meeting, Cleveland, OH).
44. Dhakal U, *Alvarez AM, **Arif M** (2019). *Xanthomonas euvesicatoria* populations are notably clonal irrespective of distant geographical distribution (Abstract; APS Annual Meeting, Cleveland, OH).
45. Dobhal S, Boluk G, Stulberg MJ, Rascoe J, Nakhla M, ***Arif M** (2019). Robust and highly reliable loop-mediated isothermal amplification (LAMP) assay for specific and sensitive detection of *Dickeya solani* (Abstract; APS Annual Meeting, Cleveland, OH).
46. *Arizala D, Dobhal S, Crockford AB, Ochoa-Corona F, Alvarez AM, **Arif M** (2019). Multiplex TaqMan qPCR targeting unique genomic regions for specific, sensitive and robust detection of *Pectobacterium* species and *P. parmentieri* (Abstract; APS Annual Meeting, Cleveland, OH).
47. *Boluk G, Dobhal S, Crockford AB, Melzer M, Alvarez AM, **Arif M** (2019) Genome-informed recombinase polymerase amplification assay for specific and sensitive detection of *Dickeya* species at point-of-care (Abstract; APS Annual Meeting, Cleveland, OH).
48. *Larrea A, Alvarez A, **Arif M** (2019). Detection of *Clavibacter michiganensis* and *C. michiganensis* ssp. *nebraskensis* using multiplex recombinant polymerase amplification coupled with LFD (Abstract; APS Annual Meeting, Cleveland, OH).

2018

49. *Ahmed F, Larrea A, Alvarez A, **Arif M** (2018). Development of genome-informed diagnostics for detection of *Pectobacterium* species using recombinase polymerase amplification coupled with LFD. (Abstract; ICPP Meeting at Boston, MA).

50. Fatdal L, *Boluk G, Larrea A, Dhakal U, Alvarez A, Strayer AL, Paret M, Jones J, Jenkins D, **Arif M** (2018). Genome-informed LAMP assays for specific detection of bacterial spot-causing bacteria, *Xanthomonas euvesicatoria* and *X. vesicatoria*. (Abstract; ICPP Meeting at Boston, MA).
51. *Larrea-Sarmiento A, Alvarez A, **Arif M** (2018). Use of comparative genomics tools to develop robust field-deployable and lab diagnostic tests for important plant pathogens, *Clavibacter michiganensis* ssp. and *C. michiganensis* ssp. *nebraskensis*. *SRS*, 43 in Student Research Symposium at University of Hawaii. Honolulu, HI.
52. *Boluk G, Dhakal U, Fatdal L, Larrea-Sarmiento A, Alvarez A, Jenkins D, **Arif M** (2018). Development of genome-informed rapid and accurate loop-mediated isothermal amplification assay for detection of *Xanthomonas euvesicatoria*, a bacterial spot causing bacteria *Xanthomonas euvesicatoria*. *SRS*, 43 in Student Research Symposium at University of Hawaii. Honolulu, HI.

2017

53. Larrea A, Alvarez A, Stack JP, ***Arif M** (2017). Pan-Genome Analyses of Black Rot Pathogen of Crucifers, *Xanthomonas campestris* pv. *campestris*. (Abstract; APS Meeting at San Antonio, TX)
54. Stack JP, Busot GY, ***Arif M** (2017). CRISPR/Cas sequence-based confirmation of an emergent population of *Rathayibacter toxicus* in South Australia. (Abstract; APS Meeting at San Antonio, TX)
55. *Wallace S, Proaño MF, Espindola AS, **Arif M**, Daughtrey M, Garzon CD (2017). Validation of species-specific primers for detection and discrimination of *Pythium aphanidermatum* and *P. deliense*. (Abstract; APS Meeting at San Antonio, TX)
56. *Larrea Sarmiento A, Alvarez A, **Arif M** (2017). Core- and pan-genome analyses of *Xanthomonas campestris* pv. *campestris*. black rot pathogen of crucifers. *SRS*, 42 in Student Research Symposium at University of Hawaii. Honolulu, HI.

2016

57. ***Arif M**, Busot GY, Mann R, Rodoni B, Liu S, Stack JP (2016) Genome analysis of *Rathayibacter toxicus* strain WAC3373 from Western Australia: Sequencing, assembly and annotation. *Phytopathology* 106, S4.1. <http://dx.doi.org/10.1094/PHYTO-106-12-S4.1> S4.96 (Abstract; APS Meeting at Tampa, FL)
58. ***Arif M**, Busot GY, Mann R, Rodoni B, Stack JP (2016) In-field detection of the select agent *Rathayibacter toxicus* using loop-mediated isothermal amplification. *Phytopathology* 106, S4.1. <http://dx.doi.org/10.1094/PHYTO-106-12-S4.1> S4.96 (Abstract; APS Meeting at Tampa, FL)
59. ***Arif M**, Busot GY, Mann R, Rodoni B, Stack JP (2016) Detection of the select agent *Rathayibacter toxicus* using recombinase polymerase amplification coupled with a lateral flow device. *Phytopathology* 106, S4.1. <http://dx.doi.org/10.1094/PHYTO-106-12-S4.1> S4.96 (Abstract; APS Meeting at Tampa, FL)
60. Stack JP, **Arif M**, Rascoe J, Nakhla MK, Busot GY (2016) Recombinase polymerase-based diagnostics for in-field detection of *Pseudomonas syringae* pv. *Actinidiae*. *Phytopathology* 106,

- S4.1. <http://dx.doi.org/10.1094/PHYTO-106-12-S4.1> S4.96 (Abstract; APS Meeting at Tampa, FL)
61. Larrea-Sarmiento A, **Arif M**, Ochoa-Corona F, Olmedo-Velarde A, Olson J (2016). Sensitive detection and discrimination of HPWMoV, WSMV and TriMV using multiplex RT-PCR and High-resolution melting: Part II. *Phytopathology* 106, S4.1. <http://dx.doi.org/10.1094/PHYTO-106-12-S4.1> S4.116 (Abstract; APS Meeting at Tampa, FL)
 62. ***Arif M**, Busot GY, Dobhal S, Stack JP (2016) Internal Control: Essential or Optional for Accurate and Reliable Diagnostics. 4th National Meeting themed "Advancing Diagnostics to Meet Plant Health Needs" National Plant Diagnostic Network. Washington DC, MD
 63. *Busot GY, **Arif M**, Dobhal S, Stack JP (2016) Nucleic acid-based diagnostics: Does the target sequence matter? 4th National Meeting themed "Advancing Diagnostics to Meet Plant Health Needs" National Plant Diagnostic Network. Washington DC, MD
 64. *Dobhal S, **Arif M**, Busot GY, Stack JP (2016) Essentials of molecular diagnostic protocol validation to develop reliable and accurate diagnostics. 4th National Meeting themed "Advancing Diagnostics to Meet Plant Health Needs" National Plant Diagnostic Network. Washington DC, MD
 65. *Stack JP, **Arif M**, Busot GY, Dobhal S (2016) Developing Durable DNA-Based Diagnostics: How well do you know your SOP? 4th National Meeting themed "Advancing Diagnostics to Meet Plant Health Needs" National Plant Diagnostic Network. Washington DC, MD

2015

66. ***Arif M**, Busot GY, Mann R, Rodoni B, Liu S, Stack JP (2015) Complete genome of the select agent *Rathayibacter toxicus* isolate SA03-04 from South Australia. *Phytopathology* 105, S4.96 (APS Meeting at Pasadena, CA)
67. *Stack JP, **Arif M**, Busot GY, Mann R, Rodoni B, Liu S (2015) Emergence of a New Population of the Select Agent *Rathayibacter toxicus*. *Phytopathology* 105, S4.31 (APS Meeting at Pasadena, CA)
68. ***Arif M**, Busot GY, Mann R, Rodoni B, Liu S, Stack JP (2015) Genome-informed diagnostics to discriminate geographically isolated populations of the select agent *Rathayibacter toxicus*. *Phytopathology* 105, S4.8 (APS Meeting at Pasadena, CA)
69. *Busot GY, **Arif M**, Stack JP (2015) Genome analysis of nonpathogenic *Pseudomonas syringae*: secretion system, effectors and toxins. *Phytopathology* 105, S4.22 (APS Meeting at Pasadena, CA)
70. *Busot GY, **Arif M**, Rascoe J, Nakhla MK, Stack JP (2015) LAMP and multiplex endpoint PCR-based diagnostics for discrimination among *Pseudomonas syringae* pv. *actinidiae* strains. *Phytopathology* 105, S4.22 (APS Meeting at Pasadena, CA)
71. *Rodoni B, Stack JP, Busot GY, **Arif M**, Smith G, Thompson S, Frampton R, Sullivan K, Mackie J, Mann R, Chapman T, Bellgard M, Barrero R, Moolhuijzen P (2015) Genome-informed diagnostics: Making sense of sequence to solve the Fire Blight diagnostic conundrum. Plant Biosecurity Cooperative Research Centre Science Exchange. Queensland, Australia, p34

2014

72. ***Arif M**, Busot G, Iriarte F, Fischer T, Stack JP (2014) Comparative sequence-based analysis of *Fusarium proliferatum* populations from seven maize genotypes. *Phytopathology* 104 (11), 9-10 (APS Meeting at Minneapolis, MN)
73. *Busot G, **Arif M**, Stack JP (2014) Genome-informed identification of diagnostic sequences in non-pathogenic *Pseudomonas syringae*. *Phytopathology* 104 (11), 21 (APS Meeting at Minneapolis, MN)
74. *Dobhal S, **Arif M**, Olson J, Ochoa-Corona FM (2014) Comparison of end point RT-PCR and RT-HDA using primer pairs for five viruses frequently infecting ornamental and nursery crops. *Phytopathology* 104 (11), 34 (APS Meeting at Minneapolis, MN)
75. *Dobhal S, Olson J, **Arif M**, Garcia Suarez JA, Ochoa-Corona FM (2014) Development of endpoint RT-PCR for *Rose Rosette virus* and screening of *Rosa* spp from eight states of the United States. *Phytopathology* 104 (11), 34 (APS Meeting at Minneapolis, MN)
76. *Dobhal S, **Arif M**, Olsen J, Mendoza-Yerbafría¹ A, Aguilar-Moreno GS, Perez-Garcia¹ M, Ochoa-Corona FM (2014) Screening for plant viruses including TMV, HVX, CMV, TSWV and INSV in ornamental and nursery crops from four states of the United States. *Phytopathology* 104 (11), 34 (APS Meeting at Minneapolis, MN)
77. *Stack JP, **Arif M**, Busot GY, Smith G, Thompson S, Frampton R, Lu A, Sullivan K, Rodoni B, Mann R, Chapman T, Bellgard M, Barrero R, Moolhuijzen P (2014) Genome-informed diagnostics for plant pathogenic bacteria. Plant Biosecurity Cooperative Research Centre Science Exchange. Queensland, Australia
78. Caasi DRJ, **Arif M**, Payton M, Melcher U, Winder L, *Ochoa-Corona FM (2014) A multi-target, non-infectious and clonable artificial positive control for PCR-based assays. VIR-PM2057; International Union of Microbiological Societies Congresses at Montreal, Canada
79. Caasi DRJ, **Arif M**, Altenbach D, *Ochoa-Corona FM (2014) Rapid sampling of microorganisms and nucleic acids for PCR assays using a novel elution-independent collection device. VIR-PM2075; International Union of Microbiological Societies Congresses at Montreal, Canada

2013

80. ***Arif M**, Vahling-Armstrong CM, Knerr J, Lupien S, Dugan F, du Toit LJ, Schroeder BK (2013) Modification of oligo design for enhanced sensitivity of DNA microarray for detection of fungal onion bulb rot pathogens. *Phytopathology* 103 (6), S2.8 (APS Meeting at Austin, TX)
81. ***Arif M**, Aguilar-Moreno GS, Wayadande A, Fletcher J, Ochoa-Corona FM (2013) SYBR green and Taqman qRT-PCR, helicase dependent amplification, end-point RT-PCR and Razor Ex BioDetection System for detection of *High plains virus*. *Phytopathology*, 103 (6), S2.9 (APS Meeting at Austin, TX)
82. ***Arif M**, Perez-Garcia M, Dobhal S, Ochoa-Corona FM (2013) A simple and rapid method to generate full sequence reads from small qPCR amplicons using direct sequencing. *Phytopathology*, 103 (6), S2.8 (APS Meeting at Austin, TX)
83. ***Arif M**, Mendoza-Yerbafría A, Aguilar-Moreno GS, Perez-Garcia M, Ochoa-Corona FM (2013) Development of end-point multiplex RT-PCR and helicase dependent amplification for

- detection of CMV, HVX, INSV, TMV and TSWV. *Phytopathology*, 103 (6), S2.9 (APS Meeting at Austin, TX)
84. *Andreason S, **Arif M**, Brown JK, Fletcher J, Ochoa-Corona FM, Wayadande A (2013) Multiplex PCR identification of high consequence *Bemisia tabaci* biotypes and *Trialeurodes vaporariorum*. *Phytopathology*, 103 (6), S2.7 (APS Meeting at Austin, TX)
 85. *Baskett J, **Arif M**, Mavrodi D, Mavrodi O, Schroeder BK (2013) Epifluorescence microscopy of temporal interactions of *Enterobacter cloacae* in onions. The Summer 2013 Undergraduate Research Poster Symposium at Washington State University, The Office of Undergraduate Research, Pullman, WA
 86. *Udquim KI, **Arif M**, du Toit LJ, Schroeder BK (2013) Detection and discrimination of *Botrytis* species, causal agents of onion bulb rot, using quantitative polymerase chain reaction (qPCR) melting curve analysis. The Summer 2013 Undergraduate Research Poster Symposium at Washington State University, The Office of Undergraduate Research, Pullman, WA
 87. Knerr J, Humann J, Vahling-Armstrong C, **Arif M**, du Toit LJ, *Schroeder BK (2013) Advancement in molecular techniques for rapid identification of onion bulb rot pathogens: development of a bacterial DNA macroarray presentation at the Washington State University Onion Field Day

2012

88. Dobhal S, Zhang G, Ma LM, **Arif M** (2012) Screening of biological control agents from fresh produce against foodborne human pathogens. *Phytopathology*, 102 (7), S4.30 (APS Meeting at Providence, RI)
89. ***Arif M**, Fletcher J, Ochoa-Corona FM (2012) Application of primer and probe modifications in detection, biosecurity and microbial forensics. *Phytopathology*, 102 (7), S4.6 (APS Meeting at Providence, RI)
90. ***Arif M**, Daniels J, Chalam C, Fletcher J, Ochoa-Corona FM (2012) Detection of *High plain virus* with loop-mediated isothermal amplification. *Phytopathology*, 102 (7), S4.6 (APS Meeting at Providence, RI)
91. Chalam C, ***Arif M**, Fletcher J, Ochoa-Corona FM (2012) Detection of *Bean pod mottle virus* using RT-PCR, RT-qPCR and isothermal amplification. *Phytopathology*, 102 (7), S4.20 (APS Meeting at Providence, RI)
92. Chalam C, ***Arif M**, Cassi DR, Fletcher J, Ochoa-Corona FM (2012) Discrimination among *Cherry leafroll virus*, *Grapevine fanleaf virus* and *Tomato ringspot virus* using multiplex RT-PCR. *Phytopathology*, 102 (7), S4.20 (APS Meeting at Providence, RI)
93. *Ozakman Y, **Arif M**, Cassi DR, Ochoa-Corona FM (2012) RT-PCR assays for the detection and discrimination of *Maize dwarf mosaic virus*, *Sugarcane mosaic virus* and *Sorghum mosaic viruses*. *Phytopathology*, 102 (7), S4.89 (APS Meeting at Providence, RI)
94. *Andreason S, Brown JK, Fletcher J, Ochoa-Corona FM, **Arif M**, Wayadande A (2012) Development of mtCOI primers for the rapid identification of *Bemisia tabaci* biotypes and *Trialeurodes vaporariorum*. *Phytopathology*, 102 (7), S4.5 (APS Meeting at Providence, RI)

2011

95. ***Arif M**, Olson J, Whitfield A, Ochoa-Corona FM (2011) Sensitive detection and discrimination of WSMV, TriMV and HPV using multiplex RT-PCR. *Phytopathology*, 101 (6), S9 (APS Meeting at Honolulu, HI)
96. ***Arif M**, Garzon CD, Ochoa-Corona FM (2011) Detection and discrimination of *Pythium aphanidermatum* and *P. deliense* by single probe based real time PCR and multiplex end point PCR. *Phytopathology*, 101 (6), S9 (APS Meeting at Honolulu, HI)
97. ***Arif M**, Ochoa-Corona FM, Marek S, Fletcher J (2011) Multi-gene based detection and identification of *Phymatotrichopsis omnivora*. *Phytopathology*, 101 (6), S9 (APS Meeting at Honolulu, HI)
98. Ouyang P, ***Arif M**, Ochoa-Corona FM, Melcher U, Fletcher J (2011) Sensitive detection and discrimination of *Xylella fastidiosa* subsp. *pauca*, causal agent of citrus variegated chlorosis. *Phytopathology*, 101 (6), S135 (APS Meeting at Honolulu, HI)
99. Abd-Elmagid AW, *Garrido P, Hunger RM, Melouk HA, **Arif M**, Garzon CD (2011) Multiplex PCR for four Sclerotinia species. *Phytopathology*, 101 (6), S2 (APS Meeting at Honolulu, HI)
100. **Arif M**, Ouyang P, Ochoa-Corona FM, *Wayadande A, Fletcher J (2011) Detection of *Xylella fastidiosa* in the insect vector, the glassy-winged sharpshooter, *Homalodisca vitripennis*. 59th Annual Meeting of Entomological Society of America, Reno, Nevada, USA
101. **Arif M**, Ochoa-Corona FM, *Opit G, Li ZH, Kučerová Z, Stejskal V, Yang QQ (2011) Sensitive detection and discrimination of stored-product pests of genus *Liposcelis* (Psocoptera: Liposcelididae) and *Lepinotus* (Psocoptera: Trogiidae). 59th Annual Meeting of Entomological Society of America, Reno, Nevada, USA

2010

102. ***Arif M**, Oikonomakos I, Caasi DRJ, Ochoa-Corona FM (2010) Increased PCR amplification incorporating primer flap sequences and free energy values near equilibrium. *Phytopathology*, 100 (6), S7 (APS Meeting at Charlotte, NC)
103. *Caasi DRJ, **Arif M**, Ochoa-Corona FM (2010) Assessment of new biomaterials for sample collection and nucleic acid recovery. *Phytopathology*, 100 (6), S19 (APS Meeting at Charlotte, NC)
104. ***Arif M**, Marek S, Ochoa-Corona FM, Young C, Garzon CD (2010) PCR detection and identification of *Phymatotrichopsis omnivora*. *Phytopathology*, 100 (6), S7 (APS Meeting at Charlotte, NC)
105. ***Arif M**, Flores F, Ochoa-Corona FM, Garzon CD (2010) Highly sensitive molecular detection of five *Pythium* species. *Phytopathology*, 100 (6), S7 (APS Meeting at Charlotte, NC)
106. *Dobhal S, Blazheva D, **Arif M**, Garrido P, Ochoa-Corona FM, Opit G, Garzon CD (2010) PCR detection of aflatoxin producing strains of *Aspergillus* spp. from corn and red flour beetle. *Phytopathology*, 100 (6), S30 (APS Meeting at Charlotte, NC)
107. ***Arif M**, Oikonomakos I, Caasi DRJ, Ochoa-Corona FM (2010) Optimized PCR-based detection for microbial forensics using 5' non-complementary sequences and thermodynamics. 19th Annual Virology Retreat, Ardmore, USA

108. ***Arif M**, Blazheva D, Garrido P, Ochoa-Corona FM, Garzon CD (2010) Development of a diagnostic PCR for detection of aflatoxin and identification of *Aspergillus flavus*. Food & Agricultural Products Center Symposium, Oklahoma State University, Stillwater, USA, p22

2009

109. *Ochoa-Corona FM, **Arif M**, Locali-Fabris EC, Freitas-Astua J (2009). An RT-PCR procedure for detection and surveillance of *Citrus leprosis virus C* (CiLV-C) in post-entry quarantine stocks of citrus. 2009 Annual Meeting of American Phytopathological Society, Oregon, USA.

2008

110. ***Arif M**, Zaidi NW, Haq QMR, Singh US (2008) Etiology and management of shisham wilt in India using conventional, molecular and *in silico* techniques. *J Biotechnol*, 136, S621-622 (British Petroleum (BP) Young Scientist and Student Award finalist in 13th International Biotechnology Symposium and Exhibition at Dalian, Northeast China)
111. ***Arif M**, Shukla SK, Zaidi NW, Haq QMR, Singh US (2008) Genetic characterization by RAPD analysis of *Fusarium solani* isolates associated with shisham wilt in India. National Symposium and 60th Annual Meeting of Indian Phytopathological Society, Mahabaleshwar, India, p110
112. ***Arif M**, Shukla SK, Zaidi NW, Haq QMR, Singh US (2008) Molecular characterization within *Fusarium solani* as revealed by PCR-fingerprinting based on SPAR markers. National Symposium and 60th Annual Meeting of Indian Phytopathological Society, Mahabaleshwar, India, p117

2007

113. ***Arif M**, Zaidi NW, Singh US (2007) Identification and molecular characterization of *Fusarium* sp. associated with mango malformation using PCR based techniques. *J Mycol Pl Pathol*, 37 (1), 186 (ISMPP Meeting at Mahabaleshwar, India)
114. *Kumar S, **Arif M**, Shukla SK, Singh US (2007) Pathogenic and molecular diversity in *Ralstonia solanacearum* isolated from different solanaceous crops. *J Mycol Pl Pathol*, 37 (1), 185 (ISMPP Meeting at Mahabaleshwar, India)
115. ***Arif M**, Zaidi NW, Singh US (2007) Molecular characterization using ISSR markers and nuclear rDNA sequence data based identification of *Fusarium* sp. associated with mango malformation. 94th Indian Science Congress, Annamalainagar, Chidambaram, TN, India, p166
116. *Pani DR, **Arif M**, Khan G, Singh US (2007). Genetic diversity analysis in small and medium grained aromatic rice. National Symposium, Cuttack, India, p39
117. *Pani DR, **Arif M**, Khan G, Singh US (2007) Genetic analysis aromatic rice using ISSR markers. National seminar, Bhubaneswar, India, p71
118. ***Arif M**, Haq QMR, Zaidi NW, Singh US (2007) Development of highly polymorphic marker for *Fusarium solani* associated with shisham wilt disease. 2nd Uttarakhand State Science Congress, Nainital, India, p112
119. ***Arif M**, Zaidi NW, Haq QMR, Singh VK, Singh US (2007) Confirmation of *Fusarium* sp. using bioinformatics tools to study etiology of shisham wilt. International Conference on Bioinformatics and Drug Discovery, Hyderabad, India, p83

120. ***Arif M**, Zaidi NW, Singh US (2007) Use molecular and bioinformatics tools to study etiology and management of shisham wilt. Prof. M.J. Narsimhan Academic Merit Award at the National Conference, Indian Phytopathological Society, Kumarganj, India, p47

2006

121. ***Arif M**, Zaidi NW, Singh US (2006) A comparison of ISSR and RAPD marker for the study of genetic variability in *Fusarium* sp. associated with mango malformation. 47th Annual Conference of Association of Microbiologist of India, Bhopal, India, p102

2004

122. ***Arif M**, Yadav AK, Shah M, Shukla SK, Zaidi NW, Singh US (2004) Collection and isolation of *Fusarium* sp. from malformed tissues associated with mango malformation for the study of genetic variability. 73rd Annual Meeting and Symposium of Society of Biological Chemist, Pantnagar, India, p39
123. ***Arif M**, Singh Y, Singh US (2004) Study on genetic variability *Fusarium* sp. associated with mango malformation using RAPD-PCR. 73rd Annual Meeting and Symposium of Society of Biological Chemist, Pantnagar, India, p39
124. *Shukla SK, **Arif M**, Yadav AK, Khanna VK (2004) A comparison of agarose RAPD and polyacrylamide RAPD to study genetic variability in aromatic and non-aromatic rice (*Oryza sativa*). 73rd Annual Meeting and Symposium of Society of Biological Chemist, Pantnagar, India, p57
125. *Yadav AK, **Arif M**, Singh Y, Shukla SK, Singh US (2004) Genetic variability of aromatic rice and role of proteins in kernel elongation after cooking. 73rd Annual Meeting and Symposium of Society of Biological Chemist, Pantnagar, India, p61
126. ***Arif M**, Singh US (2004) Molecular characterization of *Fusarium* sp. associated with mango malformation using RAPD. 26th Annual Conference and Symposium of Indian Society of Mycology and Plant Pathology, Goa, India

INVITED-SEMINARS

- Aug 23, 2023 Advancement in plant pathogen diagnostics in high-throughput sequencing era. ICPP 2023, Lyon, France.
- May 24, 2023 Opportunities in Biosecurity, at "Plant Biosecurity in Theory and Practice" workshop, Biosecurity Research Institute, Kansas State University, Manhattan, KS, USA
- May 23, 2023 Plant Diagnostics in Genomic Era, at "Plant Biosecurity in Theory and Practice" workshop, Biosecurity Research Institute, Kansas State University, Manhattan, KS, USA
- May 22, 2023 Biosecurity alert: Coffee leaf rust in Hawaii, at "Plant Biosecurity in Theory and Practice" workshop, Biosecurity Research Institute, Kansas State University, Manhattan, KS, USA
- Feb 02, 2023 Genome biology and evolution of *Clavibacter*, at the Kansas State University, Department of Plant Pathology, Manhattan, KS

- Dec 02, 2022 Genome biology and evolution of *Clavibacter michiganensis*: A serious pathogen of tomato, at the Oklahoma State University, Department of Entomology and Plant Pathology, Stillwater, OK
- Oct 27, 2022 NextGen Plant Pathogen Diagnostics at the University of California, Department of Microbiology and Plant Pathology, Riverside, CA
- Aug 09, 2022 Pacifica Bacterial Collection at the University of Hawaii: A valuable resource for genetic, evolutionary, taxonomic and epidemiological studies. ("Special Session": APS Annual Meeting 2022 in Pittsburgh, PA).
- Mar 10, 2022 Rapid advancement in the world of plant pathogen diagnostics. Ball Horticultural Company, Chicago, IL (virtual)
- Nov 23, 2021 The changing world of diagnostics. Department of Plant Pathology, University of Wisconsin-Madison, Madison, WI (virtual)
- Aug 05, 2021 The future of plant diagnostics and disease surveillance (part 2). ("Special Session": APS Annual Meeting 2021, virtual).
- June 16, 2021 Minimum standards for publication of diagnostic assays: required or optional for next-generation diagnostics? at the APS Pacific Division Meeting 2021, USA (virtual).
- Mar 01, 2021 The influence of genomic content on biology and evolution of plant pathogenic bacteria, *Clavibacter*, at the School of Life Sciences, University of Hawaii Manoa, Honolulu, HI, USA.
- Oct 28, 2020 Biology and evolution of *Clavibacter michiganensis*, at Department of Plant Pathology and Crop Physiology, Louisiana State University, Baton Rouge, LA, USA (virtual).
- Oct 19, 2020 Recombinase Polymerase Amplification: An emerging isothermal technology, at Beltsville Laboratory, USDA APHIS PPQ, Science and Technology, Beltsville, MD, USA (through Zoom).
- Nov 30, 2018 Biological Select Agent *Rathayibacter toxicus*: An ecological complex and toxin-producing, high threat bacterium of plant and animal health, at Department of Tropical Plant and Soil Sciences, CTAHR, University of Hawaii, Honolulu, HI, USA.
- Nov 19, 2018 *Rathayibacter toxicus*: an ecologically complex, high threat bacterium of plant and animal health, at Microbiology Department, University of Hawaii, Honolulu, HI, USA
- May 15, 2018 Case Study on *Rathayibacter toxicus* at "Plant Biosecurity in Theory and Practice" workshop, Biosecurity Research Institute, Kansas State University, Manhattan, KS, USA
- May 16, 2017 Case Study on the Select Agent *Rathayibacter toxicus*: high consequence bacteria of biosecurity concern, at "Plant Biosecurity in Theory and Practice" workshop, Biosecurity Research Institute, Kansas State University, Manhattan, KS, USA
- May 24, 2016 Case Study on the Select Agent *Rathayibacter toxicus*: high consequence bacteria of biosecurity concern, at "Plant Biosecurity in Theory and Practice"

- workshop, Biosecurity Research Institute, Kansas State University, Manhattan, KS, USA
- May 21, 2015 Case Study on *Rathayibacter toxicus*. cause of recurrent livestock deaths in Australia, at "Plant Biosecurity in Theory and Practice" workshop, Biosecurity Research Institute, Kansas State University, Manhattan, KS, USA
- April 30, 2015 Genome-informed diagnostics and population structure of *Rathayibacter toxicus*. an ecologically complex, geographically isolated bacterium, at Department of Plant Pathology, Kansas State University, Manhattan, KS, USA
- Jan 17, 2014 Array of synthetic oligonucleotides to generate a unique multi-target artificial positive control for routine diagnostics. Webinar delivered to Diagnosticians of Great Plains Diagnostics Network, USA (through Zoom).
- Oct 13, 2010 Improving pathogen detection and population genetics of soil-borne plant pathogens, at Department of Entomology and Plant Pathology, Oklahoma State University, OK, USA
- Jan 10, 2009 Use of molecular and bioinformatics tools to study etiology and management of shisham wilt, at National Symposium and 60th Annual Meeting of Indian Phytopathological Society, Mahabaleshwar, India