

CURRICULUM VITAE for XIANG (Sean) LI

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Adjunct Professor (2009-Current)
Department of Biology
University of Prince Edward Island

EMPLOYMENT

2016-Present Senior Research Scientist, Science Branch, Charlottetown Laboratory, Canadian Food Inspection Agency, Charlottetown, PEI, Canada
2007-2016 Research Scientist, Science Branch, Charlottetown Laboratory, Canadian Food Inspection Agency, Charlottetown, PEI, Canada
2009-Current Adjunct Professor, Department of Biology, University of Prince Edward Island, PEI, Canada
2004-2007 Professor, Chinese Academy of Sciences, Guangzhou, China
2002-2004 Project Manager, CK Life Sciences International Inc, Tai Po, Hong Kong
1996-2002 Research Scientist, Cubist Pharmaceuticals Inc. (Formerly TerraGen Discovery Inc.), Vancouver, BC, Canada.
1995-1996 Research Associate, West East Centre for Microbial Diversity, Department of Microbiology and Immunology, University of British Columbia, Vancouver, BC, Canada.
1993-1995 Postdoctoral Fellow, Agriculture and Agri-Food Canada, (Formal) Vancouver Research Station, BC, Canada.
1989-1993 Research Technician (Part-time) Australian Collection of Microorganism, The University of Queensland, Australia.
1983-1989 Research Associate, Plant Quarantine Institute, Ministry of Agriculture, Beijing, China

PROFESSIONAL PREPARATION:

1993-1995 Postdoctoral Fellow, Molecular Phytopathology/Phytobacteriology, Agriculture and Agri-Food Canada, Vancouver Research Station, BC, Canada.
1989-1993 PhD Candidate, Microbiology/Phytopathology, Dept of Microbiology, The University of Queensland, Australia. Supervisor: Dr. Chris A. Hayward.
1986-1987 Visiting Scholar, Dept of Microbiology, The University of Queensland, Australia.
1979-1983 Bachelor's Degree in Agric Sc. (Phytopathology/Entomology), Department of Plant Protection, Hua Zhong Agriculture University, Wuhan, China.

ORGANIZATION MEMBERSHIPS

Member of International Society for Plant Pathology (ISPP)
Committee Member of Plant Quarantine and Biosecurity Committee of ISPP
Committee member of Committee on Taxonomy of Plant Pathogenic Bacteria of ISPP.
Technical Specialist of ISOTC eCommittee SC 16/WG 4
Canadian Member of ISO SC16/WG 4
Member of American Phytopathological Society (APS)
Committee Member of APS Bacteriology and Diagnostics Committees
Member of American Society for Microbiology
Member of Canadian Phytopathological Society (CPS)
Member of Potato Association of America

OTHER RECENT AND PAST ACTIVITIES

Past Chairmam, NAPPO Potato Ralstonia Technical Advisory Group, North America Plant Protection Organization, 2008-2012.
Meeting organizer, CPS Maritime Regional Meeting, 2010
Symposium co-chairman, Canadian Phytopathological Society Annual Meeting, 2008
Symposium chairman, Maritime Natural Products Conference, 2010
Editorial Board Member of “ACTA Microbiological Sinica”, 2007-Current
Editorial Board Member of “Journal of Tropical Oceanography”, 2005-2011
Editorial Board Member of Molecular Bacterial Pathogenesis (Section of Frontiers in Cellular and Infection Microbiology) 2021-Present

RESEARCH EXPERTISE AND ACHIEVEMENTS

I joining CFIA as a research scientist in 2007. Since then, I have developed novel theories and techniques representing an advance in molecular biotechnology/genomics, and demonstrated competency in multi-disciplinary research reflecting CFIA mandates and policies. I have demonstrated leadership in the diagnosis and identification of *Ralstonia solanacearum*R3bv2, *Dickeya* spp., and other bacterial pathogens, and established and implemented novel assays and standards to detect *Ralstonia* R3bv2 in supporting CFIA diagnostic and regulatory decisions. I served as the chairman, leading the *Ralstonia* Technical Advisory Group for NAPPO to develop protocols and standards on *Ralstonia* management for NAPPO countries. I applies genomics-based approaches to classify and identify *Dickeya* spp. *Pectobacterium* spp. and *Clavibacter* spp, and proposed new names *Dickeya fangzhongdai* sp nov. for description of a soft rot bacterium causing bleeding canker of pear tree, and *Clavibacter zhangzhongyongii* sp nov for description of a barley disease of leaf brown spot and decline. I have shown that latently infected tomato plants are a contributing factor to the spread of potato zebra chip disease, and established a loop-mediated isothermal amplification (LAMP) platform and handheld device for on-the-spot diagnosis. Employing next generation sequencing and genomics/metagenomics technologies, I have completed draft genome sequences and annotation for many plant pathogenic bacteria and used the data for developing novel protocols and assays for regulatory pathogens. Based on comparative genomics, 16S rRNA sequences, MLST, and phenotypic characteristics, the taxonomic position of the phytopathogenic clavibacter subspecies were raised to species status as *Clavibacter michiganensis* , *C. sepedonicus* sp. nov., *C. insidiosus* sp. nov., *C. nebraskensis* sp. nov., and *C. tessellarius* sp. nov. A phylogeographic study of MLSA data revealed the risk of introducing European and Euroasian strains of *Heterobasidion* in international trade of forest products. From time to time, I provide scientific advice to the Plant Health Program and senior managements addressing regulatory issues between Canada and the US on bacterial ring rot and *Dickeya* spp, and scientific opinions in bilateral discussions with Indonesia, Mexico, and Costa Rica on trade related issues.

PUBLICATION

Research papers: 83
Book chapters: 7
Miscellaneous publications: 7

SELECTED PUBLICATIONS IN JOURNALS AND BOOKS (*Corresponding author).

1. Osdaghi, E., van der Wolf, J.M., Abachi, H. **Li, X.**, De Boer, S.H., and Ishimaru, C.A. 2022. Bacterial ring rot of potato caused by *Clavibacter sepedonicus*: A successful example of defeating the enemy under international regulations. *Molecular Plant Pathology*. <https://doi.org/10.1111/mpp.13191>

2. Chuan, J., Zhou, A., Hale, L.R., He, M., Li, X.* 2021. Atria: an ultra-fast and accurate trimmer for adapter and quality trimming, Gigabyte, 1, 2021 <https://doi.org/10.46471/gigabyte.31> .
3. Qian, T., Chuan, J., Sun, X., Zhou, A., Wang, L., Zou, J., Zhao, W., and Li, X.* 2021. Description of *Clavibacter zhangzhongyongii* sp nov., a phytopathogenic actinobacterium isolated from barley seeds, causing leaf brown spot and decline. International Journal of Systematic and Evolutionary Microbiology 71(5):004786. (doi: 10.1099/ijsem.0.004786)
4. Zhou, A., Tian, Y., Nie, J., Chuan, J., Hu, B., Zou, J., and Li, X.* First isolation and identification of *Dickeya fangzhongdai* causing soft rot in orchid in Canada. Plant Disease (doi:10.1094/PDIS-04-21-0771-PDN)..
5. Dong, H., Chen, Y., Wang, J., Zhang, Y., Zhang, P., Li, X., Zou, J., and Zhou, A. 2021. Interactions of microplastics and antibiotic resistance genes and their effects on the aquaculture environments. Journal of Hazardous Materials 403(5): 123961. DOI: 10.1016/J.JHAZMAT.2020.123961
6. Zhou, A., Zhang, Y., Xie, S., Chen, Y., Li, X., Wang, J., Zou, J. 2021. Microplastics and their potential effects on the aquaculture systems: a critical review. Reviews in Aquaculture. 13 (1): 719-733. DOI: 10.1111/RAQ.12496
7. Ian K. Toth; Marie-anne Barny; Robert Czajkowski; John G. Elphinstone; **Xiang (Sean) Li**; Jacques Pédrón; Minna Pirhonen; Frédérique Van Gijsegem 2021 Pectobacterium and Dickeya: Taxonomy and Evolution. In: Van Gijsegem F., van der Wolf J.M., Toth I.K. (eds) Plant Diseases Caused by Dickeya and Pectobacterium Species. Springer, Cham. https://doi.org/10.1007/978-3-030-61459-1_2
8. Jan M. van der Wolf; Greig Cahill; Frédérique Van Gijsegem; Valérie Helias; Sonia Humphris; **Xiang (Sean) Li**; Ewa Lojkowska; Leighton Pritchard, 2021. Isolation, Detection and Characterization of Pectobacterium and Dickeya Species. In: Van Gijsegem F., van der Wolf J.M., Toth I.K. (eds) Plant Diseases Caused by Dickeya and Pectobacterium Species. Springer, Cham. https://doi.org/10.1007/978-3-030-61459-1_5
9. Jan M. van der Wolf; Ivette Acuña; Solke H. De Boer; May B. Brurberg; Greig Cahill; Amy O. Charkowski; Teresa Coutinho; Triona Davey; Merete W. Dees; Yeshitila Degefu; Brice Dupuis; John G. Elphinstone; Jiaqin Fan; Esmaeil Fazelisani; Thomas Fleming; Nahid Gerayeli; Vladimir Gorshkov; Valérie Helias; Yves le Hingrat; Steven B. Johnson; Andreas Keiser; Isabelle Kellenberger; Xiang (Sean) Li; Ewa Lojkowska; Rodney Martin; Juliana Irina Perminow; Olga Petrova; Agata Motyka-Pomagruk; Simeon Rossmann; Santiago Schaerer; Wojciech Sledz; Ian K. Toth; Leah Tsrör; Jacquie E. van der Waals; Patrice de Werra; Iris Yedidia. 2021. Diseases Caused by Pectobacterium and Dickeya Species Around the World. In: Van Gijsegem F., van der Wolf J.M., Toth I.K. (eds) Plant Diseases Caused by Dickeya and Pectobacterium Species. Springer, Cham. https://doi.org/10.1007/978-3-030-61459-1_7
10. Zhou, A., Xie, S., Sun, D., Zhang, P., Dong, H., Zuo, Z., Li, X.*, Zou, J.* 2020. First insight into the structural and functional comparison of environmental microbiota in freshwater turtle *Chinemys reevesii* at different growth stages under pond and greenhouse cultivation. Microorganisms. 2020. 8(9): 1277. DOI: 10.3390/MICROORGANISMS8091277

11. Tian, Y., Zhao, Y, Chen B., Chen S., Zeng, R., Hu, B., and Li, X.* 2020. Real-time PCR assay for detection of *Dickeya fangzhongdai* causing bleeding canker of pear disease in China. *Journal of Integrative Agriculture* 19 (4): 898-905.
12. Li, X.*, De Boer, S.H., Alvarez, A.M., and Schaad, N.W. 2020. Chapter 30: Detection of *Ralstonia solanacearum* in potato and geranium, Page 211-219 in *APS Manual on Detection of Plant Pathogenic Bacteria in Seed and Planting Material* (Second Edition). Edited by M'Barek Fatmi, Ron R. Walcott, and Norman W. Schaad, APS Press.
13. Chen, B, Tian L, Zhao, Y, Wang Y., Chuan J, Li, X*, Hu B*. 2020. Genomic characteristics of *Dickeya fangzhongdai* isolates from pear and the function of type IV pili in the chromosome. *Journal of Integrative Agriculture* 19 (4): 906-920.
14. Li X.*, and De Boer, S.H. 2019. Descriptions of *Clavibacter insidiosus* sp. nov. and *Clavibacter tessellarius* sp. nov.. *International Journal of Systematics and Evolutionary Microbiology* 69:2069 (<https://doi.org/10.1099/ijsem.0.003439>).
15. Chen B, Tian Y, Zhao Y, Wang J, Xu Z, Li X.* and Hu B* Bleeding canker of pears caused by *Dickeya fangzhongdai*: Symptoms, etiology and biology. *Journal of Integrative Agriculture*. 19 (4): 889-897.
16. Rahimi-Khameneh, S, Hsieh, S, Xu, R, Avis TJ, Li, X, Smith, D, Dutta B, Gitaitis RD, Tambong JT. 2019. Pathogenicity and a TaqMan real-time PCR for specific detection of *Pantoea allii*, a bacterial pathogen of onions. *Plant Disease* 103: 3031-3040. <https://doi.org/10.1094/PDIS-03-19-0563-RE>.
17. Shamoun SF, Hammett C, Sumampong G, Li X. and Garbelotto M 2019. New taxon-specific *Heterobasidion* PCR primers detect and differentiate North American *Heterobasidion* spp. in various substrates and led to the discovery of *Heterobasidion irregulare* in British Columbia, Canada. *Pathogens* 2019, 8(3), 156; <https://doi.org/10.3390/pathogens8030156>.
18. Smith RL, Lawrence J, Shukla M, Singh M, Li X, Xu H, Chen D, Gardner K, and Nie X. 2019. Occurrence of *Coleus blumei* viroid 6 in commercial *Coleus blumei* in Canada – the first report outside of China. *Plant Dis*. <https://doi.org/10.1094/PDIS-10-18-1875-PDN> (Listed in last year assessment as In press).
19. Chuan J, LI W, TIAN Q, Nie J, Sun X, Zhao W. and Li X.*. 2019 A bacterial classification toolkit and its application in *Clavibacter* subspecies and *Liberbacter* subspecies. *Canadian Journal of Plant Pathology* (Abstract in press).
20. Li X*, Nie, J, Chuam J, Lacroix C, and Hale L. 2019. Can potato zebra chip disease related pathogens be transmitted through true seeds? *Canadian Journal of Plant Pathology* (Abstract in press).
21. Zhao, Y., Tian, Y., Li, X. and Hu, B. 2018. Complete genome sequence of a type strain of *Dickeya fangzhongdai* causing bleeding canker of pear tree trunks. *Genome Announcement* (In press).

22. Zhao, Y, Dou, J, Geng, G, Tian, Y, Fan J. Li, X. and Hu, B. 2018. First report of *Pectobacterium carotovorum* subsp. *brasiliense* causing blackleg and stem rot on potato in China. Plant Disease (Submitted for review).
23. Li X., Yuan X. 2017. Genome sequences for multiple *Clavibacter* strains from different subspecies. Genome Announc 5:e00721-17. <https://doi.org/10.1128/genomeA.00721-17>.
24. Li X, Nie, J, and Xu, H. 2018. Current research progress on potato zebra chip disease caused by 'Ca. *Liberibacter solanacearum*'. Mini article included in the Conference Proceedings for the Northeast Potato Technology Forum in Fredericton March 2018.
25. Xu, H., Hammill, DL, Li, X. and Nie, J. 2018. Introduction of molecular diagnostic methods for the rapid and sensitive detection of potato viruses in support of CFIA potato certification program. Mini article included in the Conference Proceedings for the Northeast Potato Technology Forum in Fredericton March 2018.
26. Shamoun, SF, Hammett, C, Kassatenko, I, Sumanpong, G, and Li, X. 2018. Development of species-specific PCR primers for rapid detection and identification of North American *Heterobasidion* species. Canadian Journal of Plant Pathology. 40 (1), 158 (Abstract)
27. Li, X, Nie, J, Yuan, K, Xu, H, Hutter, C, Briere, S and De Boer SH, 2017. Isolation and identification of *Dickeya solani* from hyacinth bulbs imported from the Netherlands. Canadian Journal of Plant Pathology. 39(4): 565 (Abstract)
28. Xu, H, Ward, L, Li, X, Nie, J, Cody, S and Annett, M. 2017. Development of high throughput protocols for automated nucleic acid extraction and molecular detection of potato viral, fungal and bacterial pathogens on large scale. Canadian Journal of Plant Pathology. 39(4): 584 (Abstract)
29. Li, X., Tambong, J., Yuan, X., Xu, H., and De Boer, S.H. 2016. Re-classification of *Clavibacter michiganensis* Subspecies into Multiple New Species. Canadian Journal of Plant Pathology 39(1): 101 (Abstract).
30. Xu, H., Li, X.*, Hammill, D.L., Cody, S. and Nie, J. 2017. Development and validation of diagnostic procedures based on the next generation sequencing technology for screening potato accessions imported to Canada. Canadian Journal of Plant Pathology 39(1): 112 (Abstract)
31. Li X, Tambong J., Yuan X., Chen W., Xu H., Levesque C.A. and De Boer, S.H. 2018. Re-classification of *Clavibacter michiganensis* subspecies on the basis of whole-genome and multi-locus sequence analyses. International Journal of Systematics and Evolutionary Microbiology 68:234–240. DOI 10.1099/ijsem.0.002492
32. Tian, Y., Zhao, Y., Yuan X., Yi, J., Fan, J., Xu, Z., Hu, B.*, De Boer, S.H., and Li, X.* 2016. *Dickeya fangzhongdai* sp. nov., a plant-pathogenic bacterium isolated from pear trees (*Pyrus pyrifolia*). International Journal of Systematic and Evolutional Microbiology. 66(8):2831-2835.
33. Gagnon, M.C., van der Lee, T., Bonants, P., Smith, D.S., Li, X., Levesque, C.A., Bilodeau, G.J. 2016. Development of polymorphic microsatellite loci for potato wart from next-generation sequence data. Phytopathology 106(6):636-644.
34. Li, X.*, De Boer, S.H., Alvarez, A.M., and Schaad, N.W. 2016. Detection of *Ralstonia solanacearum* in potato and geranium. Chapter 30 in APS manual on detection of plant pathogenic bacteria in seed and planting material (Ed. M'Barek Fatmis) (Book chapter in press).
35. Yuan, K., Cullis, J., Lévesque, C.A., Tambong, J., Chen, W., Lewis, C.T., De Boer, S.H., Li, X.* 2015. Draft genome sequences of *Ralstonia solanacearum* race 3 biovar 2 strains with different temperature adaptations. Genome Announcements 3(4):e00815-15. doi: 10.1128/genomeA.00815-15.
36. Li, X.*, Yuan, K., Cullis, J., Lévesque, A.C., Chen, W., Lewis, C.T. and De Boer, S.H. 2015. Draft genome sequences for Canadian isolates of *Pectobacterium carotovorum* subsp. *brasiliense* with weak virulence on potato. Genome Announcement 3(2):e00240-15, doi:10.1128/genomeA.00240-15

37. Yuan, K., Adam, L., Tambong, J., Lévesque, C.A., Chen, W., Lewis, C.T. De Boer, S.H. , and Li, X.* 2013. Draft genome sequence of *Pectobacterium wasabiae* strain CFIA1002. Genome Announcement 15:2(3). pii: e00214-14. doi: 10.1128/genomeA.00214-14.
38. Li, X.*, Nie, J., Hammill, D.L., Smith, D., Xu, H., and De Boer, S.H. 2014 A comprehensive comparison of assays for detection and identification of *Ralstonia solanacearum* race 3 biovar 2. Journal of Applied Microbiology 117(4):1132-43. doi: 10.1111/jam.12585
39. Bull, C.T., Coutinho, T.A., Denny, T.P., Firrao, G., Saux, M.F. Li, X., Saddler, G.S., Scortichini, M. Stead, D.E., Takikawa, Y. 2014. List of new names of plant pathogenic bacteria 2011-2012. Journal of Plant Pathology 96: 223-226
40. Yuan, K., Li, X.*, Adam, L., Tambong, J., Lévesque, C.A., Chen, W., Lewis, C.T. De Boer, S.H. 2014. Draft genome sequence of *Pectobacterium wasabiae* strain CFIA1002. Genome Announcement 2(3):e00214-14. doi:10.1128/genomeA.00214-14.
41. Bull, C.T., Coutinho, T.A., Denny, T.P., Firrao, G., Fischer-Le Saux, M., Li, X., Saddler, G.S., Scortichini, M., Stead, D.E., Takikawa, Y. 2014. In memoriam - John M. Young (1942-2013). International Journal of Systematic and Evolutionary Microbiology. 64:2183.
42. Wang, G, Zhou, D, Dai, S, Tian, X, Li, J, Chen, W, Xiang, W, Li, X. 2013 *Pustulibacterium marinum* gen. nov., sp. nov., a member of the family Flavobacteriaceae isolated from the Bashi Channel. International Journal of Systematic and Evolutionary Microbiology. 63(8): 3056-3061. doi: 10.1099/ij.s.0.048413-0.
43. Li, X.*, Nie, J. Arsenault, H. Hammill, D.L., Xu, H., and S.H. De Boer 2013 Tomato as a latent carrier of '*Candidatus Liberibacter solanacearum*', the causal agent of potato zebra chip disease EPPO Bulletin 43 (2): 229-237
44. De Boer, S.H., Li, X., and Ward, L. 2012 *Pectobacterium* spp. associated with bacterial stem rot syndrome of potato in Canada. Phytopathology 102: 937-947
45. Xu, M., Chen, X., Qiu, M., Zeng, X., Xu, J., Deng, D., Sun, G., Li, X., Guo, J. 2012. Bar-coded pyrosequencing reveals the responses of PBDE-degrading microbial communities to electron donor amendments. PLOS One 7(1): e30439
46. Li, X., Nie, J., Ward, L. Nickerson, J., De Boer, S.H. 2011 Development and evaluation of a loop-mediated isothermal amplification assay for rapid detection and identification of *Pectobacterium atrosepticum*. Can J Plant Pathol 33: 447-457
47. Ouyang, Y., Wu, H., Xie, L., Wang, G., Dai, S., Chen, M. Li, X.* 2011. A method to type the potential angucycline producers in actinomycetes isolated from marine sponges. Antonie van Leeuwenhoek 99(4): 807-815
48. Li, X., Levy, L., Olivas, A.F, and De Boer, S.H., Detection and Identification of *Ralstonia solanacearum* Phylotype II Sequevar 1 (Race 3 Biovar 2), Annex 19 in NAPPO RSPM 3.
49. Dai, SK, Ouyang, Y., Wang, G., Li, X.* 2011 *Streptomyces autolyticus* JX-47 Large-Insert Bacterial Artificial Chromosome Library Construction and Identification of Clones Covering Geldanamycin Biosynthesis Gene Cluster. Current Microbiology 63(1): 68-74
50. Madani, M., Subbotin, S.A., Ward, L.J. Li, X., and De Boer, S.H. 2010 Molecular characterization of Canadian populations of potato cyst nematodes, *Globodera rostochiensis* and *G. pallida* using ribosomal nuclear RNA and cytochrome b genes Can J Plant Pathol 32: 252-263.
51. Sun W., Wu HB, Jiang, SM, Dai, SK, Wang, GH, Li X*. 2010 Diversity of culture-independent and culture-dependent actinobacteria associated with the marine sponge *Hymeniacidon perleve* Antonie van Leeuwenhoek 98 (1): 65-75.

52. Li, X., Nie, J., Ward, L., Madani, M., Hsiang, T., Zhao, Y., De Boer, S.H. 2009. Comparative genomics-guided loop-mediated isothermal amplification for characterization of *Pseudomonas syringae* pv. *phaseolicola*. *Journal of Applied Microbiology* 107(3): 717-726
53. Secor, G.A. V.V. Rivera, J.A. Abad, G.R.G. Clover, L.W. Liefing, X. Li, S.H. De Boer. 2009. Association of '*Candidatus Liberibacter*' sp. with the Zebra Chip Disease of Potato Established by Grafting, Psyllid Transmission and Electron Microscopy. *Plant Disease* 93(6): 574-583
54. Li X., Guo J, Dai S, Ouyang Y, Wu H, Sun W, Wang G. 2009 Exploring and exploiting microbial diversity through metagenomics for natural product drug discovery. *Current Topics in Medicinal Chemistry* 9 (16): 1525-1535.
55. Xie, LW, Jiang, SM, Zhu, HH, Sun, W, Ouyang, YC, Dai, SK, and Li, X.*. 2008. Potential inhibitors against *Sclerotinia sclerotiorum*, produced by fungus *Myrothecium* sp. associated with marine sponge *Axinella* sp. *European Journal of Plant Pathology* 122(4): 571-578
56. Jiang, SM, Li, X.* Zhang L., Sun W., Dai S. K., Xie L. W., Liu Y. H., Lee K. J. 2008. Culturable actinobacteria isolated from marine sponge *Iotrochota* sp. *Marine Biology* 2008 153 (5): 945-952
57. Jiang, SM, Sun, W, Chen, MJ, Dai, SK, Li, X.* 2007. Diversity of cultivable actinobacteria isolated from marine sponge *Haliclona* sp. *Antonie van Leeuwenhoek*, 92(4): 405-416
58. Penn J., Li X. Whiting A., Wrigley S.K., Latif M., Gibson T., Silva C.J., Davies J., Miao V., Brian P., Baltz R.H. 2006 Heterologous production of daptomycin in *Streptomyces lividans*. *Journal of Industrial Microbiology and Biotechnology* 33(1): 121-128
59. Li, X. and Qin, L. 2005 Metagenome-Based Drug discovery and marine microbial diversity. *Trends in Biotechnology* 23 (11): 539-543.
60. Li, X. and De Boer, S.H. 2005 First Report of *Burkholderia andropogonis* causing leaf spots of *Bougainvillea* sp. in Hong Kong and clover in Canada. *Plant Disease* 89: 1132.

RECENT PRESENTATIONS

- 1) Xiang Li (Sean), 2022. Revisit bacterial ring rot caused by *Clavibacter sepedonicus*: Current progress and future prospects. An oral presentation delivered at 2022 Northeast Potato Technology Forum on March 16-17, 2022.
- 2) Xiang Li and Aiguo Zhou, 2020. First isolation and identification of *Dickeya fangzhongdai* in PEI. An oral presentation delivered at the 2020 Dec 24 regional meeting of Canadian Phytopathological Society July 2020 Charlottetown (online)
- 3) Xiang Li (Sean)*, Aiguo Zhou, Jingbai Nie, and Jiacheng Chuan (Eric). 2020. The interspecies and intraspecies relationship among *Liberibacter* Spp. An oral presentation delivered at 2021 Northeast Potato Technology Forum on March 23-24, 2021
- 4) Jiacheng Chuan (Eric), Aiguo Zhou, Jingbai Nie, Larry Hale, and **Xiang Li (Sean)** The transcriptomic response of tomato plants to potato zebra chip disease pathogens. An oral presentation delivered at 2021 Northeast Potato Technology Forum on March 23-24, 2021 by Eric Chuan.
- 5) Xiang Li 2021. Dynamic changes of microbial communities in surface water under the nutrient reduction and pesticide BMPs. An oral presentation delivered at Annual Meeting of Living Labs Initiatives Atlantic Project on March 29-30, 2021 in Charlottetown (Online).
- 6) Li, X. 2019. NGS Applications for diagnosis and detection of plant pathogens. An oral presentation delivered at the 2019 AAFC-USDA collaboration meeting on genotyping and monitoring of high-risk plant pathogens, Cleveland, USA.

- 7) Li, X. 2019. Simultaneous detection of '*Candidatus Liberibacter solanacearum*' and potato virus S in potato and tomato plants. An oral presentation delivered at the 2019 meeting on Euphresco Phylib II Project at Edinburgh, Scotland in September 2019.
- 8) Li X, 2019. Can potato zebra chip disease related pathogens be transmitted through true seeds? An oral presentation delivered at the 2019 regional meeting of Canadian Phytopathological Society July 2019 Charlottetown.
- 9) Li, X., 2019. NGS Applications for Fastidious Prokaryotes. An oral presentation delivered at CFIA Plant Research Seminar Series Sept 5, 2019. The seminar was well received with more than 60 live and virtual participants, including CFIA staff from across the Plant Science Business Line, as well as individuals from AAFC and European countries.
- 10) Li, X. 2018. Recent research progress on potato zebra chip disease caused by '*Ca. Liberibacter solanacearum*', an oral presentation delivered at Northeast Potato Technology Forum at Fredericton March 21-22, 2018.
- 11) Li, X, Nie, J, Yuan, K, Xu, H, Hutter, C, Briere, S and De Boer SH, 2017. Isolation and identification of *Dickeya solani* from hyacinth bulbs imported from the Netherlands. A poster presented at 2017 Joint Meeting of the Canadian Phytopathological Society and Canadian Society of Agronomy at Winnipeg June 18-22, 2017.
- 12) Li, X., 2018 *Dickeya* and *Pectobacterium*: their identification, classification, virulence, and genomics. An oral presentation delivered at CFIA Plant Research Seminar Series April 20, 2017. The seminar was well received with more than 60 live and virtual participants, including CFIA staff from across the Plant Science Business Line, as well as individuals from AAFC and European countries.
- 13) Li, X. 2018. Development of a LAMP-based hand-held device for on-the-spot diagnosis and detection of plant pathogens. An oral presentation delivered at CFIA Plant Research Seminar Series December 14, 2017. The seminar was well received with more than 40 live and virtual participants, including CFIA staff from Operation, Programs and Science Branches across the country, as well as individuals from AAFC and provincial governments.
- 14) Xu, H., Li, X.*, Hammill, D.L. Cody, S. and Nie, J. 2016. Development and validation of diagnostic procedures based on the next generation sequencing technology for screening potato accessions imported to Canada. CPS 2016 Annual Meeting at Moncton, NB, June 2016. Canadian Journal of Plant Pathology (Abstract in press)
- 15) Li, X*, Tambong, J., Yuan, X., Xu, H., and De Boer, S.H. 2016. Re-classification of *Clavibacter michiganensis* subspecies into multiple new species. CPS 2016 Annual Meeting at Moncton, NB, June 2016. Canadian Journal of Plant Pathology (Abstract in press)
- 16) Li, X.*, Yuan, K., and De Boer, S.H. 2015 Re-classification of potato isolates of *Pectobacterium wasabiae* as *Pectobacterium kelmani*. An oral presentation at 2015 CPS Maritime Annual Meeting at Fredericton. Canadian Journal of Plant Pathology (Abstract In Press)
- 17) Yuan, K., and Li, X., 2015 Detection and identification of *Xylella fastidiosa* from maple trees. An oral presentation at 2015 CPS Maritime Annual Meeting at Fredericton. Canadian Journal of Plant Pathology (Abstract In Press).
- 18) Xu, H., Cody, S., Hammill, D.L., and Li, X. 2015. Introducing molecular diagnostic technologies for detecting viruses in potato quarantine testing. An oral presentation by Huimin Xu at 2015. American Phytopathological Society Annual Meeting in Pasadena, California. Phytopathology (Abstract in press).
- 19) Li, X., Yuan, K., Nie, J., Adam, Z., Tambong, J., Chen, W., Lewis, C.T., De Boer, S.H. and Lévesque, C.A. 2014. Comparative genomics approaches for detection and identification of *Ralstonia solanacearum* race 3 bv 2. An oral presentation at the 13th International Journal of Plant Pathogenic Bacteria, June, 2014, Shanghai, China.
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REFERENCE UPON REQUEST.