

## CAITILYN ALLEN

*Ethyl and O.N. Allen Professor*

Department of Plant Pathology  
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## EDUCATION

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**Ph.D. Plant Pathology**, 1987 Virginia Polytechnic Institute and State University

**B.S. Botany**, 1981 University of Maine at Orono

1975-1978 Swarthmore College, Swarthmore, Pennsylvania

**Languages** : English (native speaker); French (fluent)

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## EMPLOYMENT HISTORY

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**1992-present Assistant, Associate, & Full Professor**, Department of Plant Pathology  
(Department Chair, 2011-2014)

**1988-1992, Assistant Scientist**, Department of Plant Pathology, UW-Madison

**1986-1988, Postdoctoral Research Associate**, CNRS Laboratoire de génétique moléculaire  
microbienne in Lyon, France

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## GRADUATE TRAINING HISTORY

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Trained 28 current and previous students, including 18 Ph.D. and 10 MS students; 18 women and 10 men; 2 African-American, 4 Hispanic and 1 SE Asian minority students

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## HONORS

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2018 Spitze Land Grand Faculty Excellence Award

2017 Vilas Distinguished Achievement Professor / Douglas D. Sorenson Professor

2014 Ethyl and O.N. Allen Chair of Phytobacteriology

2013 Fellow of the American Phytopathological Society (APS)

2009 Fellow of the American Association for the Advancement of Science (AAAS)

2009 Agropolis Fellow (Montpellier, France)

2008 U. Wisconsin-Madison Award for Excellence in International Activities

2008 *Palmes Académiques*: French government award for significant contribution to  
French education and culture

2005 APS National Award for Excellence in Teaching

2001 Women Engineers Professional/Academic Network National Women In  
Engineering Program Award (to WISE Program)

2000 UW-Madison Vilas Trust Research Associate

2000 UW-Madison Research-Service Award

1998 UW-Madison Distinguished Teaching Award

1997-8 Eli Lilly University Teaching Fellow

1987 Sigma Xi Outstanding Dissertation Award, Virginia Polytechnic Institute

1985 and 1986 VPI Cunningham Dissertation Fellowship (twice)

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## PUBLICATIONS

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### Refereed Journal Articles

1. Dalsing BL\*, AN Truchon\*, D Khokhani, T Lowe-Power, A MacIntyre, B McDonald, F Ailloud, R Anex, J Klassen, ET Gonzalez-Orta, C Currie, P Prior, and C Allen. 201x.

- Subgroups in the *Ralstonia solanacearum* species complex use divergent respiratory strategies to grow in tomato xylem. In revision for **Appl. Env. Microbiol**
2. Lowe-Power, T. M., D. Khokhani, and C. Allen 2018. How *Ralstonia solanacearum* manipulates and exploits the flowing plant xylem environment. **Trends in Microbiology** <https://doi.org/10.1016/j.tim.2018.06.002>
  3. Lowe-Power, T. M., C. G. Hendrich, E. von Roepenack-Lahaye, B. Li, D. Wu, R. Mitra, B. L. Dalsing, P. Ricca, J. Naidoo, D. Cook, A. Jancewicz, P. Masson, B. Thomma, T. Lahaye, A. J. Michael, and C. Allen. 2018. Metabolomics of tomato xylem sap during bacterial wilt reveals *Ralstonia solanacearum* produces abundant putrescine, a metabolite that accelerates wilt disease. **Environmental Microbiology** doi: 10.1111/1462-2920.14020
  4. Baldeweg, F., H. Kage, S. Schieferdecker, C. Allen, D. Hoffmeister, and M. Nett 2017. Structure of ralsolamycin, the inter-kingdom morphogen from the crop plant pathogen *Ralstonia solanacearum*. **Organic Letters** 19: 4868–4871.
  5. Khokhani, D., T. M. Lowe-Power, T. M. Tran, and C. Allen. 2017. A single regulator mediates strategic switching between attachment/spread and growth/virulence in the plant pathogen *Ralstonia solanacearum*. **mBio** 8:e00895-17.
  6. Tancos, M., T. Lowe-Power, T. M. Tran, C. Allen, and C. Smart. 2017. Plant-like bacterial expansins play contrasting roles in two tomato vascular pathogens. **Molecular Plant Pathology** doi: 10.1111/mpp.12611
  7. Hayes, M. M., A. M. MacIntyre, and C. Allen 2017. Complete genome sequences of the plant pathogens *Ralstonia solanacearum* type strain K60 and *R. solanacearum* Race 3 biovar 2 strain UW551. **Genome Announcements** 5: e01088-17.
  8. Li, B., T. Lowe-Power, S. Kurihara, S. Gonzales, J. Naidoo, J. MacMillan, C. Allen, and A. Michael. 2016. Functional identification of putrescine C- and N-hydroxylases. **ACS Chemical Biology** 11: 2782-2789 doi:10.1021/acscchembio.6b00629
  9. Tran, T. M., A. M. MacIntyre, D. Khokhani, M. C. Hawes, and C. Allen. 2016. Extracellular DNases of *Ralstonia solanacearum* modulate biofilms and facilitate bacterial wilt virulence. **Environmental Microbiology** 18: 4103-4117
  10. Tran, T.M., A. M. MacIntyre, M. C. Hawes, and C. Allen. 2016. Escaping underground nets: extracellular DNases degrade plant extracellular traps and contribute to virulence of the plant pathogenic bacterium *Ralstonia solanacearum*. **PLoS Pathogens** 12: e1005686 (cover image)
  11. Lowe-Power, T. M., J. M Jacobs, F. Ailloud, B. Fochs, P. Prior, and C. Allen. 2016. Degradation of the plant defense signal salicylic acid protects *Ralstonia solanacearum* from toxicity and enhances virulence on tobacco. **mBio** 7: e00656-16
  12. Weibel, J., T. M. Tran, A. M. Bocsanczy, M. Daughtrey, D. J. Norman, L. Mejia, and C. Allen 2016. A *Ralstonia solanacearum* strain from Guatemala infects diverse flower crops, including new asymptomatic hosts *Vinca* and *Sutera*, and causes symptoms in geranium, mandevilla vine, and new host African daisy (*Osteospermum ecklonis*). **Plant Health Progress** 17:114-21
  13. Hawes, M., C. Allen, B. G. Turgeon, G. Curlango-Rivera, T. M. Tran, and X. Zhongguo 2016. Root border cells and their role in plant defense. **Annual Review of Phytopathology**, 54: 143-61
  14. Ailloud, F, TM Lowe, S. Cruveiller, I. Robene, C. Allen, and P. Prior. 2016. *In planta* comparative transcriptomics of host-adapted strains of *Ralstonia solanacearum*. **Peer J** 4:e1549
  15. Prior, P., F. Ailloud, B. L. Dalsing, B. Remenant, B. Sanchez, and C. Allen. 2016. Genomic and proteomic evidence for the division of the plant pathogen *Ralstonia*

- solanacearum* into three species. **BMC Genomics** 17: 90
16. Tran, T. M., J. M. Jacobs, A. I. Huerta, A. S. Milling, J. A. Weibel and C. Allen. 2016. Sensitive, secure detection of race 3 biovar 2 and native U.S. strains of *Ralstonia solanacearum*. **Plant Disease** 100: 630-639 (*Editor's Pick*)
  17. Meng, F. L. Babujee, J. M. Jacobs, and C. Allen 2015. Comparative transcriptome analysis reveals cool virulence factors of *Ralstonia solanacearum* race 3 biovar 2. **PLoS ONE** 10: e0139090
  18. Huerta, A. I., A. S. Milling, and C. Allen. 2015. Tropical strains of *Ralstonia solanacearum* outcompete Race 3 biovar 2 strains at lowland tropical temperatures. **Applied and Environmental Microbiology** 81: 3542-3551 (*cover image*)
  19. Ailloud, F., T. Lowe, G. Cellier, D. Roche, C. Allen, and P. Prior. 2015. Comparative genomic analysis of *Ralstonia solanacearum* reveals candidate genes for host specificity. **BMC Genomics** 16: 270
  20. Dalsing, B. L., A. N. Truchon, E. T. Gonzalez, A. S. Milling, and C. Allen. 2015. Inorganic nitrogen reduction and detoxification are necessary for full *Ralstonia solanacearum* virulence on tomato. **mBio** 6(2):e02471-14
  21. Lowe, T., F. Ailloud, and C. Allen 2015. Hydroxycinnamic acid degradation, a broadly conserved trait, protects *Ralstonia solanacearum* from chemical plant defenses and contributes to root colonization and virulence. **Molecular Plant-Microbe Interactions**: 28:286-297 (*cover image*)
  22. Spraker, J. E., K. Jewell, L. Roze, J. Scherf, D. Ndagano, R. Beaudry, J. Linz, C. Allen, and N. P. Keller 2014. A volatile relationship : Profiling an inter-kingdom dialogue between two plant pathogens, *Ralstonia solanacearum* and *Aspergillus flavus*. **Journal of Chemical Ecology** 40:502-13
  23. Dalsing, B. L., and C. Allen 2014. Nitrate assimilation contributes to *Ralstonia solanacearum* root attachment, stem colonization, and virulence. **Journal of Bacteriology** 196: 949-960
  24. Jacobs, J. M., A. Milling, R. M. Mitra, F. Ailloud, P. Prior, and C. Allen 2013. *Ralstonia solanacearum* requires PopS, an ancient AvrE-family effector, for virulence and to overcome salicylic acid-mediated defenses during tomato pathogenesis. **mBio** 4(6):e00875-13
  25. Jacobs, J. M., and Allen, C. 2013. Disease resistance against a broad-host-range pathogen. **Plant Health Progress** doi:10.1094/PHP-2013-11XX-01-RS.
  26. Pauly, J., D. Spiteller, J. Linz, J. M. Jacobs, C. Allen, M. Nett, and D. Hoffmeister 2013. Ralfuranone thioether production by the plant pathogen *Ralstonia solanacearum*. **ChemBioChem** 14:2169-2178
  27. Jacobs, J. M., L. Babujee, F. Meng, A. Milling, and C. Allen. 2012. The *in planta* transcriptome of *Ralstonia solanacearum*: Conserved physiological and virulence strategies during bacterial wilt of tomato. **mBio** 3(4):e00114-12
  28. Santana, B. G., C. A. Lopes, E. Alvarez, C. C. Barreto, C. Allen, and B. Quirino. 2012. Diversity of Brazilian biovar 2 strains of *Ralstonia solanacearum*. **Journal of General Plant Pathology** 78 :190-200
  29. Remenant, B., L. Babujee, A. Lajus, C. Médigue, P. Prior, and C. Allen 2012. Sequencing of K60, type strain of the major plant pathogen *Ralstonia solanacearum*. **Journal of Bacteriology** 194 :2742-3
  30. Remenant, B., J-C de Cambiaire, G. Cellier, J. M. Jacobs, S. Mangenot, V. Barbe, A. Lajus, David Vallenet, C. Medigue, M. Fegan, C. Allen and P. Prior. 2011. *Ralstonia syzygii*, the Blood Disease Bacterium and some Asian *R. solanacearum* strains form a single genomic species despite divergent lifestyles. **PLoS One** 6(9): e24356

31. Flores-Cruz, Z., and C. Allen. 2011. Necessity of OxyR for the hydrogen peroxide stress response and full virulence in *Ralstonia solanacearum*. **Applied and Environmental Microbiology** 77: 6426-6432
32. Kubota, R., M. A. Schell, G. D. Peckham, J. Rue, A. M. Alvarez, C. Allen, and D. M. Jenkins. 2011. *In silico* genomic subtraction guides development of highly accurate, DNA-based diagnostics for *Ralstonia solanacearum* Race 3 biovar 2 and Blood Disease Bacterium. **Journal of General Plant Pathology** 77:182-193
33. Meng, F., J. Yao, and C. Allen. 2011. A hypermotile *motN* mutant of *Ralstonia solanacearum* is reduced in virulence. **Journal of Bacteriology** 193:2477-2486
34. Wackler, B. P. Schneider, J. M. Jacobs, C. Allen, W. Steglich, M. Nett, and D. Hoffmeister. 2011. Ralfuranone biosynthesis in *Ralstonia solanacearum* suggests functional divergence in the quinone synthetase family of enzymes. **Chemistry and Biology** 18:354-360
35. Milling, A., L. Babujee, and C. Allen 2011. *Ralstonia solanacearum* extracellular polysaccharide is a specific elicitor of defense responses in wilt-resistant tomato plants. **PLoS One** 6(1): e15853
36. Colburn-Clifford, J. M., J. M. Scherf, and C. Allen. 2010. *Ralstonia solanacearum* Dps contributes to oxidative stress tolerance, colonization, and virulence on tomato plants. **Applied and Environmental Microbiology** 76:7392-7399
37. Scherf, J. M., A. Milling, and C. Allen. 2010. Moderate temperature fluctuations rapidly reduce viability of *Ralstonia solanacearum* Race 3 biovar 2 in infected geranium, tomato, and potato. **Applied and Environmental Microbiology** 76:7061-7067
38. Remenant, B., B. Coupat-Goutaland, A. Guidot, G. Cellier, E. Wicker, C. Allen, M. Fegan, O. Pruvost, M. Elbaz, A. Calteau, G. Salvignol, D. Mornico, S. Manganot, V. Barbe, C. Medigue and P. Prior. 2010. Genomes of three diverse tomato pathogens within the *Ralstonia solanacearum* species complex reveal evolution in action. **BMC Genomics** 11:379
39. Colburn-Clifford, J. M., and C. Allen. 2010. A *cbb*<sub>2</sub>-type cytochrome *c* oxidase contributes to *Ralstonia solanacearum* R3bv2 growth in microaerobic environments and to bacterial wilt disease development in tomato. **Molecular Plant-Microbe Interactions** 23:1042-1052 (*Editor's Pick for the issue*)
40. Li, J.-G., H.-X. Liu, J. Cao, L.-F. Chen, C. Gu, C. Allen, and J.-H. Guo. 2010. PopW of *Ralstonia solanacearum*, a new two-domain harpin targeting the plant cell wall. **Molecular Plant Pathology** 11: 371-381
41. Chen, Y., W. Z. Zhang, X. Liu, Z. H. Ma, B. Li, C. Allen, and J.-H. Guo. 2010. A real-time PCR assay for the quantitative detection of *Ralstonia solanacearum* in the horticultural soil and plant tissues. **Journal of Microbiology and Biotechnology** 20 :193-201
42. MacDonald, J., C. Allen, D. Gadoury, W. Jacobi, S. Kelemu, J. Moyer, T. Murray, K. Ong, C. Pearson, J. Sherwood, and A. Vidaver. 2009. Education in plant pathology: Present status and future challenges. **Plant Disease** 93:1238-1251
43. Mejía, L., B.E. Garcia, A.C. Fulladolsa, E.R. Ewert, J.-F. Wang, J.W. Scott, C. Allen, and D.P. Maxwell. 2009. Evaluation of recombinant inbred lines for resistance to *Ralstonia solanacearum* in Guatemala and preliminary data on PCR-based tagging of introgressions associated with bacterial wilt-resistant line, Hawaii 7996. **Tomato Genetics Cooperative Report** 59:32-41
44. Schneider, P., J. M. Jacobs, J. Neres, J. C. A. Aldrich, C. Allen, M. Nett, and D. Hoffmeister. 2009. The global virulence regulators VsrAD and PhcA control secondary metabolism in the plant pathogen *Ralstonia solanacearum*. **ChemBioChem** 10: 2730-32

45. Toukam, G. M. S., G. Cellier, E. Wicker, C. Guilbaud, R. Kahane, C. Allen, and P. Prior. 2009. Broad diversity of *Ralstonia solanacearum* strains in Cameroon. **Plant Disease** 93:1123-1130
46. Allen, C., A. F. Bent, and A. O. Charkowski. 2009. Underexplored niches in research on plant pathogenic bacteria. **Plant Physiology** 150:1631-37
47. Flores-Cruz, Z. and C. Allen. 2009. *Ralstonia solanacearum* encounters an oxidative environment during tomato infection. **Molecular Plant-Microbe Interactions**: 22:773-782
48. Milling, A., F. Meng, T. P. Denny, and C. Allen. 2009. Interactions with hosts at cool temperatures, not cold tolerance, explain the unique epidemiology of *Ralstonia solanacearum* Race 3 biovar 2. **Phytopathology** 99:1127-1134
49. Champoiseau, P., J. Jones, and C. Allen. 2009. *Ralstonia solanacearum* Race 3 biovar 2 causes tropical losses and temperate anxieties. **Plant Health Progress** doi:10.1094/PHP-2009-0313-01-RV
50. Nakaho, K. and C. Allen. 2009. A pectinase-deficient *Ralstonia solanacearum* strain induces reduced and delayed structural defenses in tomato xylem. **Journal of Phytopathology** 157: 228-34
51. Hong, J.C., T. Momol, J. Jones, P. Ji, S. Olson, C. Allen, A. Sanchez-Perez, P. Pradhanang, K. Guven. 2008. Detection of *Ralstonia solanacearum* in irrigation ponds and aquatic weeds associated with ponds in North Florida. **Plant Disease** 92:1674-82
52. J. M. Young, C. Allen, T. Coutinho, T. Denny, J. Elphinstone, M. Fegan, M. Gillings, T. R. Gottwald, J. H. Graham, J. D. Janse, M. M. Lopez, C. Morris, N. Parkinson, J. Rodrigues Neto, M. Scortichini, and Y. Takikawa. 2008. Plant pathogenic bacteria as bioterror weapons: A real threat? **Phytopathology** 98:1060-1065
53. Sanchez-Perez, A., L. Mejia, M. Fegan, and C. Allen. 2008. Diversity and distribution of *Ralstonia solanacearum* strains in Guatemala and rare occurrence of tomato fruit infection. **Plant Pathology** 57:320-331
54. Yao, J. and C. Allen. 2007. The plant pathogen *Ralstonia solanacearum* needs aerotaxis for normal biofilm formation and interactions with its tomato host. **Journal of Bacteriology** 189:6415-6424
55. González, E.T. D.G. Brown, J.K. Swanson, and C. Allen. 2007. Using the *Ralstonia solanacearum* Tat secretome to identify additional bacterial wilt virulence factors. **Applied and Environmental Microbiology** 73:3779-3786
56. Swanson, J. K., L. Montes, L. Mejia and C. Allen. 2007. Detection of latent infections of *Ralstonia solanacearum* Race 3 biovar 2 in geraniums. **Plant Disease** 91:828-834
57. Brown, D.G., J. Swanson, and C. Allen. 2007. Two host-induced *Ralstonia solanacearum* multidrug efflux pumps, AcrAB and DinF, contribute to bacterial wilt virulence. **Applied and Environmental Microbiology** 73:2777-2786
58. Allen, C. 2007. It's a Boy! Gender expectations intrude on the study of sex determination. **DNA and Cell Biology** 26: 699-705
59. Ji, P., C. Allen, A. Sanchez-Perez, J. Yao, J G. Elphinstone, J. Jones, and T. Momol. 2007. New diversity and diagnostic challenges associated with *Ralstonia solanacearum* strains in Florida. **Plant Disease** 91:195-203
60. Yao, J. and C. Allen. 2006. Chemotaxis is required for virulence and competitive fitness in the bacterial wilt pathogen *Ralstonia solanacearum*. **J. Bacteriology** 188:3697-3708
61. Gabriel, D. W., C. Allen, M. Schell, T. Denny, J. T. Greenberg, Q. Huang, Y.-P. Duan, Z. Flores, J. Clifford, G. Presting, E. T. González, J. Reddy, J. Elphinstone, J. Swanson, J. Yao, V. Mulholand, L. Liu, W. Farmerie, M. Patnaikuni, B. Balogh, D. J. Norman, A. Alvarez, J. A. Castillo, J. B. Jones, G. S. Saddler, T. Walunas, A. Zhukov, and N.

- Mikhailova. 2006. Identification of Open Reading Frames unique to Select Agent *Ralstonia solanacearum*. **Molecular Plant-Microbe Interactions** 19:69-79
62. Swanson, J. J. Yao, J. Tans-Kersten, and C. Allen. 2005. Behavior of *Ralstonia solanacearum* race 3 biovar 2 during latent and active infection of geranium. **Phytopathology** 95:136-143
63. Brown, D.G., and C. Allen. 2004. *Ralstonia solanacearum* genes induced during growth in tomato: an inside view of bacterial wilt. **Molecular Microbiology** 53:1641-1660
64. Pfund, C., J. Tans-Kersten, M. Dunning, C. Allen, and A. Bent. 2004. Flagellin is not a major defense elicitor in *Ralstonia solanacearum* cells or extracts applied to *Arabidopsis thaliana*. **Molecular Plant-Microbe Interactions** 17:696-706
65. Tans-Kersten, J., D. Brown, and C. Allen. 2004. Swimming motility, a virulence factor of *Ralstonia solanacearum*, is regulated by FlhDC and by the plant host environment. **Molecular Plant-Microbe Interactions**. 17:686-695
66. González, E. T., and C. Allen. 2003. Characterization of a *Ralstonia solanacearum* operon required for polygalacturonate degradation and uptake of galacturonic acid. **Molecular Plant-Microbe Interactions** 16:536-544
67. Brower, AM, Chris M. Golde, and C. Allen. 2003. Residential learning communities positively affect college binge drinking, **NASPA Journal** 40: No. 3, Article 9. (1518 full-text downloads through 1/13)
68. Williamson, L., C. Allen, K. Nakaho, and B. Hudelson. 2002. *Ralstonia solanacearum* race 3, biovar 2 strains isolated from geranium are pathogenic on potato. **Plant Disease** 86 :987-991
69. Tans-Kersten, J., H. Huang, and C. Allen 2001. *Ralstonia solanacearum* needs motility for invasive virulence on tomato. **Journal of Bacteriology** 183:3597-3605
70. Tans-Kersten, J., J. Gay, and C. Allen. 2000. *Ralstonia solanacearum* AmpD is required for wild-type bacterial wilt virulence. **Molecular Plant Pathology** 1:179-185
71. Huang, Q., and C. Allen. 2000. Polygalacturonases contribute to colonization ability and virulence of *Ralstonia solanacearum* on tomato plants. **Physiol. Mol. Plant Pathology** 57:77-83
72. Laferriere, L., J. P. Helgeson, and C. Allen. 1999. Fertile *Solanum tuberosum* + *S. commersonii* somatic hybrids as sources of resistance to bacterial wilt caused by *Ralstonia solanacearum* Race 3. **Theor. Appl. Genetics** 98: 1272-1278
73. Allen, C. 1999. Supporting female undergraduate science and engineering majors with a residential program. **Journal of Women and Minorities in Science & Engineering**: 5:265-278
74. Tans-Kersten, J., Y. Guan, and C. Allen. 1998. *Ralstonia solanacearum* pectin methylesterase is required for growth on methylated pectin, but not for bacterial wilt virulence. **Applied and Environmental Microbiology** 64: 4918-4923
75. Allen, C., J. Gay, and L. Simon-Buela. 1997. A regulatory locus, *pehSR*, controls polygalacturonase production and other virulence functions in *Ralstonia solanacearum*. **Molecular Plant-Microbe Interactions** 10: 1054-1064
76. Huang, Q. and C. Allen. 1997. An *exo*-poly-alpha-D-galacturonosidase, PehB, is required for wildtype virulence of *Ralstonia solanacearum*. **Journal of Bacteriology** 179: 7369-78
77. Atkinson, M., C. Allen, and L. Sequeira. 1992. Tyrosine phosphorylation of a cytoplasmic membrane protein from *Pseudomonas solanacearum*. **Journal of Bacteriology** 174:4356-4360
78. Allen, C., Y. Huang, and L. Sequeira. 1991. Cloning of genes affecting polygalacturonase production in *Pseudomonas solanacearum*. **Molecular Plant-Microbe Interactions** 4:147-154

79. Allen, C., S. Reverchon, and J. Robert-Baudouy. 1989. Nucleotide sequence of the *Erwinia chrysanthemi* 2-keto-3-deoxygluconate permease gene. **Gene** 83:233-241
80. Allen, C., H. George, Z. Yang, G. H. Lacy, and M. S. Mount. 1987. Molecular cloning of an endo-pectate lyase gene from *Erwinia carotovora* subsp. atroseptica. **Physiological and Molecular Plant Pathology** 31:325-335
81. Allen, C., V. K. Stromberg, F. D. Smith, G. H. Lacy, and M. S. Mount. 1986. Complementation of an *Erwinia carotovora* subsp. carotovora protease mutant with a protease-encoding cosmid. **Mol. Gen. Genetics** 202:276-279
82. Roberts, D. P., P. M. Berman, C. Allen, G. H. Lacy, and M. S. Mount. 1986. Requirement for two or more *Erwinia carotovora* subsp. carotovora strain EC14 pectolytic enzymes for maceration of potato tuber tissue by *Escherichia coli*. **Journal of Bacteriology** 167:279-284
83. Roberts, D. P., P. M. Berman, C. Allen, V. K. Stromberg, and G. H. Lacy. 1986. *Erwinia carotovora*: Molecular cloning of a 3.4 kilobase DNA fragment mediating production of pectate lyases. **Canadian Journal of Plant Pathology** 8:17-27

### Books, Reviews, and Book Chapters

#### Edited Books

1. Allen, C., P. Prior, and A.C. Hayward. 2005. ***Bacterial Wilt: The Disease and the Ralstonia solanacearum Species Complex***. APS Press, St. Paul. 508 pages. (APS Press bestseller for 2005)
2. Leong, S.A., C. Allen, E. Tripplett, editors. 2002. ***Biology of Plant-Microbe Interactions***, Vol. 3. APS Press, St. Paul, 360 pages
3. Prior, P., C. Allen, and J. Elphinstone, editors. 1998. ***Bacterial Wilt Disease: Molecular and Ecological Aspects***. Springer Verlag, Berlin, 447 pages

#### Book Chapters

1. Allen, C. 2015. Threats from plant pathogens. Chapter 8 in: ***Climate Change and Public Health*** (J. A. Patz and B. A. Levy, editors). Oxford University Press USA, New York. (Environmental Health Book of the Year from *The American Journal of Nursing*; Honorable Mention from *Atmospheric Science Librarians International*)
2. Jacobs, J. M., and C. Allen. 2015. Virulence mechanisms of plant pathogenic *Ralstonia* species. p. 365-380 in: ***Virulence Mechanisms of Plant Pathogenic Bacteria***, (N. Wang, J.B. Jones, and G. Sundin, eds) APS Press, St. Paul
3. Allen, C. 2007. Bacteria, bioterrorism, and the geranium ladies of Guatemala. p.169-177 in: ***Wages of Empire: Neoliberal policies, repression, and women's poverty***. (A. L. Cabezas, E. Reese, and M. Waller, editors) Paradigm Press, Boulder, Colorado
4. Brown, D., and C. Allen. 2005 Understanding the molecular basis of bacterial wilt disease: a view from the inside out. p. 371-378 in : Allen, C., P. Prior, and A. C. Hayward, eds, ***Bacterial Wilt : The Disease and the Ralstonia solanacearum species Complex***. APS Press, St. Paul
5. Allen, C., J. Tans-Kersten, and E. Gonzàlez. 2005 . Genes involved in early bacterial wilt pathogenesis. p. 343-350 in : Allen, C., P. Prior, and A. C. Hayward, eds, ***Bacterial Wilt : The Disease and the Ralstonia solanacearum species Complex***. APS Press, St. Paul
6. Allen, C. What do you do over there, anyway? Tales of an academic dual citizen. 2000. In: ***A New Generation of Feminist Science Studies*** (M. Mayberry and B. Subraminium, editors). Routledge Publishers
7. Allen, C. 1996. Inextricably entwined: Politics, biology, and gender-dimorphic behavior. p. 515-521 in: ***Evolutionary Biology and Feminism***. Patricia A. Gowaty, ed. Plenum Press, New York

8. Allen, C. Teaching courses on molecular plant-microbe interactions. 2002 In: S. Leong, E. Triplett, and C. Allen, editors. 2002. ***Biology of Plant-Microbe Interactions***, Vol. 3. APS Press, St. Paul
9. Allen, C. 2001. Shades of Gray: Changing the content of science courses to include and encourage the underrepresented. p.68-75 In: ***Flickering Clusters: Women, Science, and Collaborative Transformations*** (C. Ney, J. Ross, and L. Stempel, editors). University of Wisconsin Press, Madison
10. Allen, C., A. Kelman, and E.R. French. 2001. Bacterial Wilt Disease in: ***APS Revised Compendium of Potato Diseases***, W. R. Stevenson and R. Loria, eds. APS Press, St Paul
11. Allen, C., J. Gay, Y. Guan, Q. Huang, and J. Tans-Kersten. 1998. Function and regulation of pectin-degrading enzymes in bacterial wilt pathogenesis. p. 171-177 in: ***Bacterial Wilt Disease: Molecular and Ecological Aspects***, P. Prior, C. Allen, and J. Elphinstone, editors. Springer Verlag, Berlin
12. Laferriere, L., J. Helgeson, and C. Allen. 1998. *Solanum commersonii*-*S. tuberosum* somatic hybrids resistant to brown rot caused by *Ralstonia solanacearum*. p. 316-320 in: ***Bacterial Wilt Disease: Molecular and Ecological Aspects***, P. Prior, C. Allen, and J. Elphinstone, editors. Springer Verlag, Berlin
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## PROFESSIONAL SERVICE

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### University Service (selected major activities)

- Director, Women Faculty Mentoring Program** (2010-2016)
- Committee on Faculty Rights and Responsibilities** (2006-2009)
- Biology Divisional Committee for Tenure** (2003-06, 2017-20)
- Senior Science Advisor, International Studies Program** (2002-2012)
- Founding Faculty Director, Women In Science & Engineering (WISE)**  
Residential Program (1995-2000)

### Editorial Responsibilities

- Editorial Board, 2011-present, *Frontiers in Plant Science*
- Senior Editor, 2009-2016, American Phytopathological Society (APS) Press
- Associate Editor 1999-2006, *Molecular Plant Pathology*
- Associate Editor 1997-2001, *Molecular Plant-Microbe Interactions*

### Departmental and Program Reviews

- 2016 Graduate Program in Plant Pathology, University of California at Davis
- 2011 Department of Plant Pathology and Microbiology, Texas A&M University (*chair*)
- 2010 Department of Plant Pathology, University of Kentucky

### Professional Society Activities

- Chair, APS 2016 National Meeting Melhus Symposium
- Convenor, ASM 2016 General Meeting AgriBiomes Plenary Session



Local Organizer, NCAC-14 North Central Administrative Committee (annual meeting of Plant Pathology Chairs and Heads). Chicago, IL, February 3-5 2014  
 Local Organizer, NCAC-14 North Central Administrative Committee (annual meeting of Plant Pathology Chairs and Heads). Chicago, IL, February 7-9 2013  
 APS Committee on Agricultural Bioterrorism (2008-present)  
 APS Visioning Committee (2009-11)  
 APS Committee on the Future of Plant Pathology Education (2008-9)  
 APS Bacteriology Committee (1999-present)  
 Scientific Organizing Committee, 6th Int'l Bacterial Wilt Symposium, Toulouse, France July 2016  
 Scientific Organizing Committee, 13th International Congress on Plant Pathogenic Bacteria, Shanghai, China 2014  
 Scientific Organizing Committee, 5th Int'l Bacterial Wilt Symposium, Wuhan China 2011  
 Colloquium Planning Committee, American Society for Microbiology 2010 General Meeting  
 Co-organizer, 3rd Int'l Bacterial Wilt Symposium, White River South Africa 2002  
 Co-organizer, 2<sup>nd</sup> Int'l Bacterial Wilt Symposium, Guadeloupe French West Indies 1997

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### INVITED PRESENTATIONS (2010-2018)

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Event	Title	Year
Keynote speaker : XanthoMeeting 2018, Sao Paulo Brazil	How <i>Ralstonia solanacearum</i> thrives in the flowing plant xylem environment	2018
Invited Speaker : Institute for Food Safety & Health Conference on food waste & sustainability, Chicago IL	Using accelerated genetics to improve food: biological and social realities	2018
Invited seminar : Dep't Crop Sciences, U. Illinois-Urbana	How <i>Ralstonia solanacearum</i> manipulates and exploits the flowing plant xylem environment	2018
Invited seminar : Dept of Microbiology, U. Tennessee-Knoxville		2018
Keynote Talk : International Potato Center, Lima, Peru		2018
Invited Talk : Gordon Conference on Polyamines		2017
Seminar : Virginia Tech Life Sciences Scholars Series		2017
Invited Talk : American Society for Microbiology General Mtg		2017
Seminar : CIRAD Laboratory of Tropical Plant & Pathogen Biology, Reunion Island France	<i>Veni, vidi, vici</i> : key tools for the life cycle of the bacterial wilt pathogen <i>Ralstonia solanacearum</i>	2016
Keynote Speaker 6th Int'l Bacterial Wilt Symposium, Toulouse, France	The <i>in planta</i> regulon of the major <i>Ralstonia solanacearum</i> virulence regulator PhcA	2016
Seminar : Dept of Plant Pathology, Wageningen University, The Netherlands	Some biological mechanisms of bacterial wilt of plants caused by <i>Ralstonia solanacearum</i>	2016
Seminar : INRA-CNRS Lab for Plant-Microbe Interactions (LIPM), Toulouse, France	Some biological mechanisms of bacterial wilt of plants caused by <i>Ralstonia solanacearum</i>	2016

Seminar : INRA-CNRS Microbial Adaptation & Pathogenesis (MAP), INSA-Lyon France	Some biological mechanisms of bacterial wilt of plants caused by <i>Ralstonia solanacearum</i>	2016
Seminar : INRA Laboratory of Plant Pathology, Avignon, France	Escaping underground NETs: extracellular DNases degrade plant extracellular traps and contribute to virulence of the plant pathogenic bacterium <i>Ralstonia solanacearum</i>	2016
Seminar : Center for Plant Molecular Biology (ZMBP), U. Tubingen, Germany	Biological Mechanisms of Bacterial Wilt of Plants Caused by <i>Ralstonia solanacearum</i>	2016
Invited speaker : 12th Meeting on Plant-Bacterial Interactions, Aussois, France	Diversity of energy metabolism and nitrate respiration among phylogenetically divergent clusters of <i>Ralstonia solanacearum</i>	2016
Seminar : Institut for Research on Development (IRD) Montpellier, France	Escaping underground NETs: extracellular DNases degrade plant extracellular traps and contribute to virulence of the plant pathogenic bacterium <i>Ralstonia solanacearum</i>	2015
Seminar : Dep't of Plant and Soil Biology, University of Arizona	The Battle of the Rhizosphere: How <i>Ralstonia solanacearum</i> defeats competitors and overcomes plant defenses to invade host roots	2015
Seminar : Dept of Plant Pathology and Microbiology, Iowa State University	The Battle of the Rhizosphere: How <i>Ralstonia solanacearum</i> defeats competitors and overcomes plant defenses to invade host roots	2014
Wisconsin Symposium on Feminist Biology, Madison, WI	Incorporating feminist content into biology courses	2014
UW-Madison Summer Research Opportunities Program	Doing the Right Thing in the Gray Zone: Applied Research Ethics	2014
Invited speaker : 16th Congress on Molecular Plant-Microbe Interactions, Rhodes, Greece	Bacterial extracellular DNase: a novel virulence factor	2014
Keynote speaker : 13 <sup>th</sup> International Congress on Plant Pathogenic Bacteria	The Battle of the Rhizosphere: How <i>Ralstonia solanacearum</i> defeats competitors and overcomes plant defenses to invade host roots	2014
Plenary speaker : ASM General Meeting, Boston, MA	Blighted Harvests: Plant Pathogens in a Changing World (opening plenary session on "Global Change Microbiology)	2014
UW-Madison Grad School Peer Mentoring Awards	Mentoring Over the Career Arc	2014
Just Coffee Exchange Symposium	The Current Coffee Rust Epidemic in Latin America	2013
Institute of Medicine's Forum on Microbial Threats, Washington DC	Plant Diseases: How they affect global food security, and are affected by anthropogenic global change	2013
10 <sup>th</sup> International Congress on Plant Pathology, Beijing, China	<i>Ralstonia solanacearum</i> inorganic nitrogen metabolism influences virulence and expression of global virulence regulators	2013
UW-Madison Summer Research Opportunities Program	Doing the Right Thing in the Gray Zone: Applied Research Ethics	2013
USDA-APHIS-PPQ Pest Recovery Group Workshop	<i>Ralstonia solanacearum</i> Race 3 biovar 2 : a credible threat to U.S. Agriculture ?	2013
Seminar : Dept of Plant Pathology, Purdue University	Doing Well By Making Do: How <i>Ralstonia solanacearum</i> does practically everything with nitrate	2013
Seminar : UW-Madison WISE Program	Not What I Expected : Career Planning for Women Scientists	2012
Seminar : Dept of Molecular Biology, Yale University	Doing Well By Making Do: How <i>Ralstonia solanacearum</i> thrives in its host plants	2012
Seminar : Dept of Bacteriology, UW-Madison	Doing Well By Making Do: How <i>Ralstonia solanacearum</i> thrives in its host plants	2012
UW-Madison Summer Research Opportunities Program	Doing the Right Thing in the Gray Zone: Applied Research Ethics	2012
UW-Madison Teaching and Learning Symposium	Writing Global Learning Outcomes for Your Science Course	2012

Keynote : APS Potomac Division Annual Meeting	Doing Well By Making Do: How <i>Ralstonia solanacearum</i> thrives in its host plants	2012
Keynote : 10 <sup>e</sup> Rencontres Plantes-Bactéries, Aussois, France	The Inside Track: Transcriptomics Reveal How the Plant Pathogen <i>Ralstonia solanacearum</i> Succeeds in a Hostile Habitat	2012
UW-Madison Summer Research Opportunities Program	Doing the Right Thing in the Gray Zone: Applied Research Ethics	2011
Seminar : Dep't of Plant Pathology, U. Minnesota	The Inside Track: Transcriptomics Reveal How the Plant Pathogen <i>Ralstonia solanacearum</i> succeeds in a hostile habitat	2011
Seminar : Dep't of Biology, Carleton College, Northfield MN	The Inside Track: Transcriptomics Reveal How the Plant Pathogen <i>Ralstonia solanacearum</i> succeeds in a hostile habitat	2011
APS Workshop : Modern Pathogen Detection Methods, Honolulu	Rapid, sensitive and reliable detection of <i>Ralstonia solanacearum</i>	2011
5 <sup>e</sup> International Bacterial Wilt Symposium, Wuhan China	The <i>in planta</i> transcriptome of <i>Ralstonia solanacearum</i> : new insights into tomato pathogenesis	2010
Colloquium on Gene Expression in Infection, ASM General Meeting, San Diego CA	The <i>in planta</i> transcriptome of <i>Ralstonia solanacearum</i> : new insights into tomato pathogenesis	2010
UW-Madison Summer Research Opportunities Program	Doing the Right Thing in the Gray Zone: Applied Research Ethics	2010
UW-Madison Teaching Academy Winter Retreat	Internationalizing the Curriculum	2010

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## **SYNERGISTIC ACTIVITIES**

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### **Broadening Participation of Under Represented Groups in Science**

- Director, UW-Madison Women Faculty Mentoring Program (2010-16)
- Leadership Team Member, UW-Madison NSF ADVANCE Women In Science and Engineering Leadership Institute. 2002-2004
- Founding Faculty Director (1995-2000) and currently Steering Committee, UW-Madison Women in Science and Engineering Residential Program (WISE-RP)

### **Teaching and Mentoring**

- **Classroom teaching:** Undergrad: 'Plants, Parasites & People' & 'Biology and Gender'. Graduate: 'Molecular Plant-Microbe Interactions', 'Plant-Associated Bacteria' 'Tropical Plant Pathology' (with 2-week field trip in Guatemala).
- **Undergraduate research mentoring :** > 35 undergrad independent researchers; including 10 under-represented minorities
- **Graduate mentoring :** My 24 current and previous students include 14 Ph.D. and 10 MS students ; 16 women and 8 men ; 14 domestic and 10 international students; 5 Hispanic and 1 SE Asian minority students.
- **Organized workshop: "Teaching Graduate Courses on Molecular Plant-Microbe Interactions"** Held July 9, 2001 in conjunction with the 10th IS-MPMI Congress in Madison, WI. 70 participants.

### **International Outreach Research to Integrate and Transfer Knowledge**

- Developed MS-level student/teaching exchange between UW-Madison and Sup-Agro in Montpellier, France (supported by NSF and the French CNRS and INRA, 2005-present)
- Ongoing research collaboration with colleagues at Universidad de San Carlos de Guatemala to breed tomato varieties resistant to bacterial wilt (2003-present).
- Research biology of *R. solanacearum* for geranium producers here and in Guatemala to help quarantine officials exclude this pathogen from the US.

- Organized workshop: "Developing African-US research and training collaborations on bacterial wilt disease" Held February 2-4, 2002 in White River, South Africa. (Supported by National Science Foundation and Rockefeller Foundation).
- Research sabbaticals:
  - 2001-2002, INRA-Avignon (France)
  - 2009, CIRAD-Montpellier (France)
  - 2015-16 IRD-Montpellier (France)