

CURRICULUM VITAE

University of Idaho

NAME: Brenda K. Schroeder

DATE: March 31, 2024

RANK OR TITLE: Associate Research Professor

DEPARTMENT: Entomology, Plant Pathology and Nematology

OFFICE LOCATION AND CAMPUS ZIP: 239 Agricultural Sciences, MS 2329

OFFICE PHONE: 509-339-5320

FAX:

EMAIL: bschroeder@uidaho.edu

WEB: <https://www.uidaho.edu/cals/entomology-plant-pathology-and-nematology/our-people/brenda-schroeder>

HOME ADDRESS: 1620 NW Canyon View Drive, Pullman WA 99163

DATE OF FIRST EMPLOYMENT AT UI: July 1, 2014

DATE OF TENURE: Not currently in a tenure track position

DATE OF PRESENT RANK OR TITLE: July 1, 2014

EDUCATION BEYOND HIGH SCHOOL:

Degrees:

Ph.D. Washington State University, Pullman, WA 1997, Plant Pathology

MS, North Carolina State University, Raleigh, 1992, Plant Pathology

BS, University of Wisconsin-Madison, Madison, Wisconsin, 1989, Biochemistry

EXPERIENCE:

Teaching, Extension and Research Appointments:

Associate Research Professor, Univ. of Idaho, Dept. Entomology, Plant Pathology and Nematology, 2014-present

Assistant Professor, Department of Plant Pathology, Washington State University, 2006-2014

Postdoctoral Research Associate, Institute of Biological Chemistry, Washington State University, 2002-2005

Postdoctoral Research Associate, Department of Plant Pathology, Washington State University, 1998-2002

Graduate Research Assistant, Department of Plant Pathology, Washington State University, 1993-1997

Graduate Research Assistant, Department of Plant Pathology, North Carolina State University, 1990-1992

Research Associate, Department of Plant Pathology, University of Wisconsin-Madison

TEACHING ACCOMPLISHMENTS: (Academic and Extension teaching)

Areas of Specialization:

Plant Pathology, Phytobacteriology, Microbiology, Molecular Genetics, Genomics, Plant-Microbe Interactions, Microbial Ecology

Courses Taught:

University of Idaho

Microbiology and the World Around Us, EPPN 154, 2019 – present

Introductory Microbiology Laboratory, EPPN 155, 2019 – present

Plant Pathology, PLP 415/515 2018-present

Plant Pathology Laboratory, PLP 416/516 2018-present

Plant Pathology Teaching Practicum, PLP 502 2019, 2020

Special Topic, Microbiology, PLP 404, 2108, 2019, 2021

Special Topic, Plant Pathology Laboratory, PLP 404, 2107

Potato Science, PISc 490/590, 2016, 2018, 2019

Plant Pathology, PISc 415, 2015-2107, 2013

Washington State University

Plant Pathology PIP 514, 2006, 2008, 2010, 2012
 Plant Pathology PIP 429, 2001, 2007, 2009, 2011, 2013
 Agriculture and Food Systems AFS 201, 2102-2013
 General Microbiology MBios 301, 2001

Students Advised:

Undergraduate Students: Served as a Research Mentor or Academic Advisor:

Olivia Shaul, Lydia Oloff, Brogan Bates, 2023
 Olivia Shaul, Brogan Bates, 2022
 Ahtziri Arias, Callysta Blubaum, Kayla Joyce, Solomon Korol, Evan Reidel, Olivia Shaul, Brogan Bates, Alexi Adams 2021
 Ahtziri Arias, Callysta Blubaum, Rachel Cook, Kayla Joyce, Solomon Korol, Kaya Labanon, Emily Nowoy, Janelle Rodriguez, Sarah Smith 2020
 Ahtziri Arias, Rachel Beier, Diana Cervantes, Rachel Cook, Rachel Gross, Janelle Rodriguez 2019
 Phoebe Unger, Keely Snow, Harley Kulow, Addie Unger, Parker Cendejas 2016, 2017, 2018
 Krizia-Ivana Tan Udquim, Detection and Discrimination of *Botrytis* Species, Causal Agents of Onion Bulb Rot, Using Quantitative Polymerase Chain Reactions (qPCR) Melting Curve Analysis, 2013
 Jamil Baskett, Epifluorescence microscopy of temporal interactions of *Enterobacter cloacae* in onions, 2013
 Jorge Zavala, Determination of Pathogenicity for Bacteria Associated with Diseased Onion Bulbs, 2013
 Jeronda Hunt, Identification of pectolytic bacteria found in the Pacific Northwest, 2012
 Eugina Lo, Evaluation of microbial colonization of a toy designed for pigs, 2011-2012
 Erik Walker, Evaluation of microbial colonization of a toy designed for pigs, 2011-2012
 Ryan Liesche, Colonization of *Enterobacter cloacae* in onion leaves, 2010-2011
 Austin Bates, Development of an *Enterobacter cloacae* pathogenicity assay on onion pieces, 2009-2010
 Nathan Peterson, Movement of *Enterobacter cloacae* in onion leaves, 2009-2010
 Juan Peña, Genetic diversity of *Enterobacter cloacae*, 2008-2010
 Patrick Legler, Evaluation of Population Dynamics of *Enterobacter cloacae* on the Leaf Surfaces of Onion Plant, 2007-2008
 Eric Thyren, Evaluation of Population Dynamics of *Enterobacter cloacae* on the Leaf Surfaces of Onion Plants, 2007-2008

Graduate Students: Advised to Completion of Degree-Major Professor

Guillermo Pugliese, M.S., Plant Science, University of Idaho, 2014-2016
 Bianca Barrante-Infantes, M.S., Plant Pathology Washington State University, 2014-2016
 Stacy Mauzey, M.S., Plant Pathology, Washington State University, 2012- 2016
 Austin Bates, M.S., Plant Pathology Washington State University, 2010-2013
 Jeremiah Dung, Ph.D., Plant Pathology Washington State University 2009- 2012
 Sarah Dossey, M.S., Plant Pathology Washington State University, 2008-2011
 Jeremiah Dung, M.S., Plant Pathology Washington State University, 2007-2009

Served on Graduate Committees:

Haily Hampton, MS, University of Idaho, 2021-2024
 Kayla Yearout Janowski, MS, University of Idaho, 2019-2021
 Mariana Rodriguez-Rodriguez, M.S., University of Idaho, 2019- 2021
 Gardenia Orellana Arreaga, M.S., University of Idaho, 2018-2019
 Cesar Reyes Corral, M.S., University of Idaho, 2016-2020
 Rich Guggenheim, Ph.D., University of Idaho, 2017-2018
 Thanh Dung Lisa Tran Ph.D., University of Idaho, 2015-2018
 Jeff Bullock, Ph.D., Plant Pathology, Washington State University, 2010- 2016
 Danny Humphreys Ph.D., Plant Pathology, Washington State University, 2010- 2015
 Phuong Dinh, Ph.D., Plant Pathology, Washington State University, 2010- 2015
 Shashika Hewavitharana, M.S., Plant Pathology, Washington State University, 2011- 2013
 Sean Beckman, M.S., Food Science, Washington State University, 2009-2014
 Sridhar Jarugula Ph.D., Plant Pathology, Washington State University, 2006-2010
 Chan Maketon, M.S., Plant Pathology, Washington State University, 2009-2011
 Olefemi Alabi Ph.D., Plant Pathology, Washington State University, 2006-2010
 Cynthia Dove, Ph.D., Ed., University of Idaho, 2008

Materials Developed: (non-scholarship activity)***Depositions to public databases***

Rathayibacter rpoB, *recA* NCBI Reference Sequences:

Rathayibacter 16S rRNA gene sequences, NCBI Reference Sequences:

Rathayibacter toxicus, *Rathayibacter agropyri* chromosome, complete genome NCBI Reference Sequence:

Enterobacter cloacae EcWSU1 chromosome, complete genome NCBI Reference Sequence: NC_016514.1

Enterobacter cloacae EcWSU1 plasmid pEcWSU1_A, complete sequence NCBI Reference Sequence: NC_016515.1

Enterobacter cloacae P101 chromosome, complete genome NCBI Reference Sequence: CP006580.1

Enterobacter cloacae strain EcWSU1 DNA protection during starvation protein H (*dps*) gene, partial cds GenBank: JF831942.1

Pseudomonas syringae pv. *syringae* syringopeptin synthetase (*sypA*), syringopeptin synthetase B (*sypB*), and syringopeptin synthetase C (*sypC*) genes, complete cds GenBank: AF286216.2

Courses:***University of Idaho***

EPPN 154 Microbiology and the World Around US, 2019 - present

EPPN 155 Microbiology Laboratory, 2019 - present

PLP 415/515 Plant Pathology, 2018 - present

PLP 416/516 Plant Pathology Laboratory, 2018 - present

PLP 522 Plant Bacteriology, 2020

Special Topic, Plant Pathology, PLP 404, 2021

Special Topic, Potato Science, PLP 404, 2018

Special Topic, Plant Pathology Laboratory, PISc 404, 2017

Plant Pathology, PISc 415, 2013, 2015-2107

Potato Science, PISc 429/529, 2106, 2018

Washington State University

Plant Pathology PIP 514, 2006, 2008, 2010, 2012

Agriculture and Food Systems AFS 201, 2012

General Microbiology MBios 301, 2001

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:**Honors and Awards:**

Schroth Faces of the Future-Early Career Professional Symposium Speaker. Annual Meeting of the American Phytopathology Society, Portland, OR, August 1-5, 2009.

Recipient of a NSF sponsored Travel Award of \$500 to attend the 19th North American Symbiotic Nitrogen Fixation Conference, Bozeman, Montana, June 27-July 1, 2004.

Moderator for the Agriculture and Environmental Applications Session at the 19th North American Symbiotic Nitrogen Fixation Conference, Bozeman, Montana, June 27-July 1, 2004

Recipient of a NSF and USDA sponsored Postdoctoral Travel Award of \$2000 to attend the 9th Japan-U.S. Conference on Plant-Pathogen Interactions: Genomic and Genetic Analysis of Plant Parasitism and Defense, Shizuoka, Japan, November 3-7, 2003.

11th International Congress on Molecular Plant-Microbe Interactions Poster Competition, Second Place, 2003

The American Phytopathological Society Foundation-John Frederick Fulkerson, Student Travel Award, 1997

The Washington State University, Department of Plant Pathology, Heald Travel Award, 1995

SCHOLARSHIP ACCOMPLISHMENTS: (Including scholarship of teaching and learning, artistic creativity, discovery, and application/integration)**Publications, Exhibitions, Performances, Recitals**

Refereed/Adjudicated: (i.e. books, book chaps., journals, proc., abstr., etc.; provide citations-author, date, title, publisher) (asterisks indicates senior authorship or co-authorship or leadership of the team research; letters in bold designate a specific contribution a=developed initial idea, b= obtained or provided funds or other resources, c=collected data, d=analyzed data, e= wrote/created product, f= edited product; IF in bold designates impact factor for that journal)

Book Chapters (asterisks indicates senior authorship or co-authorship)

***Schroeder, B.K.**, Gitaitis, R. D., Dutta, B., and H. F. Schwartz. 2013. Bacterial diseases & their management in *Onion Health Management*. H. F. Schwartz, ed. Colorado State University Press.

*Wohleb, C.H., Waters, T.D., du Toit, L.J. and **Schroeder, B.K.**. 2012. The Washington State University Onion Cultivar Trial: An Important Resource for Washington Onion Growers. *ISHS Acta Horticulturae* 967:VI International Symposium on Edible *Alliaceae*. Pages 241-246. T. Wako Editor, http://www.actahort.org/books/969/969_32.htm.

***Schroeder, B.K.** 2010. Diseases caused by Bacteria and a Phytoplasma. Pages 92-94, In: Compendium of Chickpea and Lentil Diseases, 1st Edition. W. Chen, Editor. APS Press, St. Paul, MN. **(e,f)**

*Johnson, D.A., Rogers, J.D., and **Schroeder, B.K.** 2008. Yeast soft rot. Pages 68-69, In: Compendium of Onion and Garlic Diseases and Pests, 2nd Edition. H.F. Schwartz and S.K. Mohan, Editors. APS Press, St. Paul, MN. **(e,f)**

*Yurgel, S., **Schroeder, B.K.**, and Kahn, M.L. (2006). Genomic and Genetic Approaches to Understanding the Physiology of *Sinorhizobium meliloti*. In "*Biology of Plant-Microbe Interactions*". Volume 5, pp 126-131. Federico Sanchez, et al. (Eds.), International Molecular Plant Microbe Interactions, Merida, Mexico. St Paul, MN. **(c,d,f)**

Kahn, M.L., **Schroeder B.K.**, House B.L., Mortimer M.M., Yurgel S.N., Maloney S.C., Warren K.L., Fisher R.F., Barnett M.J., Toman C., and Long, S.R. (2004) Foraging for meaning—Postgenome approaches to *Sinorhizobium meliloti*. In "Biology of Molecular Plant-Microbe Interactions, Volume 4, pp 416-422. Eds: B. Lugtenberg, I. Tikhonovich, and N. Provorov IS-MPMI, St Paul, MN. **(c,d,f)**

*Bender, C.L. and **Scholz-Schroeder, B.K.** 2004. New Insights into the Biosynthesis, Mode of Action, and Regulation of Syringomycin, Syringopeptin and Coronatine. Pages 125-158 in *Pseudomonas* Volume II. Kluwer Academic/Plenum Publishers, New York, U. S. A. **(e,f)**

Gross, D. C., Grgurina, I., **Scholz-Schroeder, B. K.**, and Lu, S-E. 2003. Characterization of the *syr-syp* genomic island of *Pseudomonas syringae* pv. *syringae* strain B301D. Pages 137-145 in: *Pseudomonas syringae and Related Pathogens*, N. S. Iacobellis, ed. Kluwer Academic Publishers, Dordrecht, The Netherlands. **(c,d,f)**

Gross D.C, **Scholz-Schroeder, B.K.**, Zhang, J.-H., Grgurina, I., Mariotti, F, Della Torre, G., Guenzi, E., and Grandi, G. 1997. Characterization of the thiotemplate mechanisms of syringomycin and syringopeptin synthesis by *Pseudomonas syringae* pv. *syringae*. Pages 91-98 in *Molecular Genetics of Host-Specific Toxins in Plant Disease*. K. Kohmoto and O. C. Yoder, eds., Kluwer Academic Publishers, Dordrecht, The Netherlands. **(c,d,f)**

Gross, D.C., Hutchison, M.L., **Scholz, B.K.** and Zhang, J.-H. 1996. Genetic analysis of the role of toxin production by *Pseudomonas syringae* pv. *syringae* in plant pathogenesis. Pages 163-169 in *Proceedings of the 5th International Conference on Pseudomonas syringae Pathovars and Related Pathogens*, Berlin, Germany. **(c,d,f)**

Hutchison, M. L., Zhang, J.-H., **Scholz, B.K.** and Gross, D.C. 1994. Isolation of genes containing adenylate-forming catalytic domains in syringomycin biosynthesis by *Pseudomonas syringae* pv. *syringae*. Pages 37-40 in *Advances in Molecular Genetics of Plant-Microbe Interactions*, Vol. 3, M. J. Daniels, J. A. Downie, and A. E. Osbourn, eds. Kluwer Academic Publishers, London. **(c,d,f)**

Peer Reviewed/Evaluated: (i.e. journals, articles, proceedings, abstracts, etc.)

(asterisks indicates senior authorship or co-authorship or leadership of the team research; letters in bold designate a specific contribution a=developed initial idea, b= obtained or provided funds or other resources, c=collected data, d=analyzed data, e= wrote/created product, f= edited product; IF in bold designates impact factor for that journal)

Journals

Klasek, S., Crants, J., Abbas, T., Ashley, K., Bolton, M., Celovsky, M., Hao, J., Ibarra Caballero, J., Jahn, C., Kamgan Nkuekam, G., Lankau, R., Larkin, B., Lopez Echartea, E., Miller, J., Moore, A., Pasche, J., Ruark, M. **Schroeder, B.**, Shan, S., Skillman, V., Srour, A., Stasko, A., Steinke, K., Stewart, J., Thornton, M., Zitnick, K., Frost, K., Rosen, C., Kinkel, L.. 2023. Core potato soil microbiomes are regionally variable across the continental US. *Phytobiomes*. <https://doi.org/10.1094/PBIOMES-07-23-0060-R>. **(a,f) (IF=4.4)**

Sangjan, W., Marzougui, A., Mattinson, D.S., **Schroeder, B.K.**, Bates, A.A., Khot, L.R., and Sankaran, S. 2021. Identification of volatile biomarkers for high-throughput sensing of soft rot and *Pythium* leak diseases in stored potatoes. *Food Chem.* 370:130910. **(a,f) (IF=6.3)**

Kothawade, G., Chandel, A. K., Khot, L. R., Sankaran, S., Bates, A. A., and **B. K. Schroeder**. 2021. Field asymmetric ion mobility spectrometry for pre-symptomatic rot detection in stored Ranger Russet and Russet Burbank potatoes. *Postharvest Biology and Technology*, 181, 111679 <https://doi.org/10.1016/j.postharvbio.2021.111679> **(b, f) (IF=5.537)**

*Beck, K. D., Reyes-Corral, C., Rodriguez-Rodriguez, M., May, C., Barnett, R., Thornton, M.K., Bates, A. A., Woodhall, J. W. and **B. K. Schroeder**. 2021. First report of *Fusarium proliferatum* causing necrotic leaf lesions and bulb rot on storage onion (*Allium cepa*) in Southern Idaho. *Plant Disease*: 2021. <https://doi.org/10.1094/PDIS-06-20-1399-PDN>. **(a,b,c,d,e,f) (IF=3.02)**

Kothawade, G.S.; Sankaran, S.; Bates, A.A.; **Schroeder, B.K.**; Khot, L.R. 2020 Feasibility of Volatile Biomarker-Based Detection of *Pythium* Leak in Postharvest Stored Potato Tubers Using Field Asymmetric Ion Mobility Spectrometry. *Sensors* 2021, 20, 7350. <https://dx.doi.org/10.3390/s20247350> **(b,f) (IF=3.02)**

Woodhall, J. W., Harrington, M., Keith, S. Oropeza, A., Thornton, M. and **B. K. Schroeder**. 2020. First report of root rot caused by *Pythium myriotylum* of onion in Idaho. *Plant Disease* 104:9, 2529, <https://doi.org/10.1094/PDIS-05-19-0991-PDN> **(a, f) (IF=3.02)**

Murray, T. D., Barrantes-Infante B., **Schroeder, B.K.** 2020. First Report of Bacterial Head Blight of *Pseudoroegneria spicata* subsp. *spicata* caused by *Rathayibacter agropyri* in Idaho. *Plant Disease* 104:1534. <https://doi.org/10.1094/PDIS-06-19-1233-PDN> **(a,b,c,d,e,f) (IF=3.02)**

Tancos, M.A., Sechler, A. J., Davis II, E.W., Chang, J. H., **Schroeder, B. K.**, Murray, T. D., and E. E. Rogers. 2020. The identification and conservation of tunicaminyluracil-related biosynthetic gene clusters in several *Rathayibacter* species collected from Australia, Africa, Eurasia, and North America. *Front. Microbiol.* 10:2914 <https://doi.org/10.3389/fmicb.2019.02914> **(IF= 4.02) (b,c,f)**

Luster, D.G., McMahon, M.B., Sechler, A.J., Carter, M.L., Rogers, E.E., **Schroeder, B.K.** and T.D. Murray. 2020. Immunoreagents for development of a diagnostic assay specific for *Rathayibacter toxicus*. *Food and Ag. Immunology.* 31:231-242 **(IF= 2.38) (b,c,f)**

Davis, II, E. W., Tabima, J.F., Weisberg, A. J., Lopes, L. D., Wiseman, M. S., Pupko, T., Belcher, M.S., Sechler, A. J., Tancos, M. A., **Schroeder, B.K.**, Murray, T. D., Luster, D. G., Schneider, W. L., Rogers, E. E., Andreote, F. D., Grünwald N.J., Putnam, M.L., and Chang, J.H. 2018. Evolution of the U.S. Biological Select Agent *Rathayibacter toxicus*. *MBio* 9(4):e01280–18. **(IF= 6.689) (b,c,f)**

*Barrantes-Infante B. L., **Schroeder B. K.**, Subbotin S.A. and Timothy D. Murray. 2018. *Afrina sporoboliae* sp. n. (Nematoda: Anguinidae), a new seed-gall nematode associated with *Sporobolus cryptandrus* (Torr.) A. Gray from West Central Idaho, USA with analysis of its phylogenetic relationships, genetic diversity, and population structure. *Phytopathology*: 108:768-779 **(IF= 3.2) (a,b,c,f)**

***Schroeder, B.K.**, Schneider, W.L., Luster, D.G., Sechler, A., and Murray, T.D.. 2018. *Rathayibacter agropyri* (ex. Burkholder, 1948) nom. rev., comb. nov. isolated from western wheatgrass (*Pascopyrum smithii*). Int. J. Syst. and Evol. Microbiol. 68:1519-1525, doi: 10.1099/isjem.0.002708 (a,b,c,d,e,f) (IF=2.798)

*Sinha, R., Khot, L., **Schroeder, B. K.**, and Sankaran, S., 2018. FAIMS based volatile fingerprinting for real-time postharvest storage infections detection in stored potatoes and onions. Postharvest Biology and Technology 135:83-92. <http://dx.doi.org/10.1016/j.postharvbio.2017.09.003> (a,c,f) (IF=3.603)

*Sinha, R., **Schroeder, B. K.**, Si, Y. and Khot, L. 2017. FAIMS based sensing of *Burkholderia cepacia* caused sour skin in onions under bulk storage condition. J. Food Measurement and Characterization 7:DOI 10.1007/s11694-017-9537-y (a,c,f) (IF=0.521)

*Sechler, A., Tancos, M.A., Schneider, D.J., King J.G., Fennese, C. M., **Schroeder, B.K.**, Murray, T.D., Luster, D.G., Schneider, W.L., and Rogers E. E.. 2017. Whole genome sequence of two *Rathayibacter toxicus* strains reveals a tunicamycin biosynthetic cluster similar to *Streptomyces chartreusis*. PLOS ONE 12(8): e0183005 (a,b,f) (IF=3.2.34)

*Murray, T.D., **Schroeder, B.K.**, Schneider, W.L., Luster, D.G., Sechler, A., Rogers E. E., and Subbotin, S. A. 2017. *Rathayibacter toxicus*, other *Rathayibacter* species Inducing Bacterial Head Blight of Grasses, and the Potential for Livestock Poisonings. Phytopathol. 107: 804-815. <http://apsjournals.apsnet.org/doi/pdf/10.1094/PHYTO-02-17-0047-RVW> (a,b,c,d,e,f) (IF=3.0)

Dugan, F.M., Lupien, S.L., Vahling-Armstrong, C.M., Chastagner, G.A., and **Schroeder, B. K.** 2017. Host ranges of *Penicillium* species causing blue mold of bulb crops in Washington State and Idaho. Crop Protection 96:265-272. (b,f) (IF=1.790)

Sinha, R., Khot, L.R., **Schroeder, B.K.** and Y. Si. 2017. Rapid and non-destructive detection of *Pectobacterium carotovorum* causing soft rot in stored potatoes through volatile biomarker sensing. Crop Protect. 93:122-131 (a,b,c,f) (IF=1.790)

*Vahling-Armstrong, C., Dung, J.K.S., Humann, J.L., and **Schroeder, B.K.** 2016. Effects of postharvest onion curing parameters on bulb rot caused by *Pantoea agglomerans*, *Pantoea ananatis* and *Pantoea allii* in storage. Plant Pathology Plant Pathology 65:536-544 <http://onlinelibrary.wiley.com/doi/10.1111/ppa.12438/epdf> (a,b,c,f) (IF=2.493)

Murray, T.D., Agarkova, I., Alderman, S., Allen, J., Bulluck, R., Chitambar, J., Divan, C., Riley, I., **Schroeder, B.**, Sechler, A., and S. Subbotin. 2015. Recovery plan for *Rathayibacter* poisoning caused by *Rathayibacter toxicus* (syn. *Clavibacter toxicus*) National Plant Disease Recovery System, a cooperative project of the American Phytopathological Society and the United States Department of Agriculture, posted at <http://www.ars.usda.gov/research/npdrs>.

Schwartz H. F., Alston, D., Alwang, J., Bartolo, M., Blunt, T., Boateng, C.O., Bunn, B., Cramer, C. S., Cranshaw, W., Davidson, J., Derie, M., Doran, J., Douce, K., Drost, D., du Toit, L.J., Gao, J., Gourd, T., Gugino, B., Hammon, B., Hardin, J., Hausbeck, M., Jibilian, G., Lafferty, J., LaForest, J., McMillan, M.S., Mohan, S. K., Morrice, J., Nault, B. A., Nischwitz, C., Norton, G., Otto, K., Pappu, H.R., Petersen, M., Sampangi, R., **Schroeder, B.**, Secor, W., Szostek, S., Tisserat, N., Uchanski, M.E., VanKirk, J., Waters, T., Wiriayajitsomboon, P., and Wohleb, C. 2014. Onion *ipm*PIPE: A Coordinated Effort to Improve the Management of Onion Thrips and *Iris yellow spot virus* for the U.S. Onion Industry. Plant Health Progress 15:172-183. (c,f)

*Dugan, F.M., Lupien, S.L., Vahling-Armstrong, C.M., Chastagner, G.A., and **Schroeder, B.K.** 2014. Host ranges of North American isolates of *Penicillium* causing blue mold of bulb crops. Crop Protection 64:129-136. <http://dx.doi.org/10.1016/j.cropro.2014.06.013> (b,f) (IF=1.66)

*Humann, J.L., Wildung, M., Pouchnik, D., Bates, A. A. Drew, J. C., Zipperer, U. N., Triplett, E. W., Main, D. and **Schroeder, B. K.** 2014. Complete genome of the switchgrass endophyte *Enterobacter cloacae* P101. Standards in Genomic Sciences. 9:3:726-734. doi:10.4056/sigs.4808608 (a,b,f) (IF=2.01)

*Dung, J.K.S., Johnson, D.A., and **Schroeder, B.K.**. 2014. Role of co-infection by *Pectobacterium* spp. and *Verticillium dahliae* in the development of early dying and aerial stem rot of potato. *Plant Pathology*.63:299-307. DOI: 10.1111/ppa.12086 **(a,b,f) (IF=2.493)**

M. Powell, B. Gundersen, C. A. Miles, J. L. Humann, **B. K. Schroeder**, and D. A. Inglis. 2013. First Report of Tomato Pith Necrosis (*Pseudomonas corrugata* Roberts & Scarlett) on Tomato (*Solanum lycopersicum* Mill) in Washington. 2013. *Plant Disease* 97:1381. <http://dx.doi.org/10.1094/PDIS-03-13-0265-PDN>. **(IF=3.02)**

Hadwiger, L.A., Druffel, K., Humann, J.L., and **Schroeder, B.K.**. 2013. Nuclease released by *Verticillium dahliae* is a signal for non-host resistance. *Plant Science* 201-202: 98-107. DOI: 10.1016/j.plantsci.2012.11.011. **(f) (IF=2.92)**

*Dung, J.K.S., Johnson D.A., and **Schroeder, B.K.** 2012. First report of *Pectobacterium wasabiae* causing aerial stem rot of potato in Washington State. *Plant Disease*. 96:1819. doi/pdf/10.1094/PDIS-05-12-0444-PDN. **(a,b,f) (IF=3.02)**

***Schroeder, B.K.**, Humann, J.L., and du Toit, L.J. 2012. Effects of postharvest onion curing parameters on the development of sour skin and slippery skin in storage. *Plant Disease* 96: 1548-1555. **(a,b,c,e,f) (IF=3.02)**

*Barak, J.D. and **Schroeder, B.K.** 2012. Inter-relationships of Food Safety and Plant Pathology: The Life Cycle of Human Pathogens on Plants. *Annual Review of Phytopathology* 50:241-266. doi:10.1146/annurev-phyto-081211-172936 **(a,c,f) (IF=10.412)**

*Humann, J.L., Wildung, M., Cheng, C-H, Lee, T., Stewart, J.E., Drew, J.C., Triplett, E.W., Main, D., and **Schroeder, B.K.** 2011. Complete genome of the onion pathogen *Enterobacter cloacae* EcWSU1. *Standards in Genomic Sciences*, 5:3 279-286. ISSN 1944-3277 doi:10.4056 /sigs.2174950. **(a,b,f) (IF=1.6)**

*Johnson, D.A., Dung, J.K.S., Cummings, T.F. and **Schroeder, B.K.** 2011. Development and Suppression of Aerial Stem Rot in Commercial Potato Fields. *Plant Disease* 95:285-291. **(a,f) (IF=3.02)**

***Schroeder, B.K.** and du Toit, L.J. 2010. Effects of Postharvest Onion Curing Parameters on *Enterobacter* Bulb Decay in Storage. *Plant Disease* 94:1425-1430. **(a,b,c,e,f) (IF=3.02)**

Dung, J.K.S., **Schroeder, B.K.**, and Johnson, D.A. 2010. Greenhouse evaluation of *Verticillium* Wilt resistance in *Mentha arvensis* and *M. longifolia* genotypes. *Plant Disease* 94:1255-1260. **(a,f) (IF=3.02)**

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Presentations

“Impact of temperature on the development of storage rot by *Rahnella* spp.” Schroeder, B. K., Woodhall, J. and Thornton, M., Idaho and Eastern Oregon Onion Growers Association Annual Meeting, Feb. 7, 2023.

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“Bacterial Ring Rot of Potato: Sanitation, Sanitation and more Sanitation.” Schroeder, B. K. Presentation at the WSU Potato Field Day, June 27, 2013.

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Classification of a new bacterial species in the genus *Rathayibacter* based on analysis of the 16S rRNA and

other housekeeping genes. Mauzey, S.J., Murray, T.D., **Schroeder, B.K.** 2013. Poster presented at the Washington State University Wiley Research Exposition, Pullman, WA, February, 2013.

Epifluorescence microscopy of temporal interactions of *Enterobacter cloacae* in onions. Baskett, J., Arif, M., Mavrodi D., Mavrodi O. and **Schroeder B. K.** Agmus Research Symposium, San Juan, Puerto Rico, September 14, 2013.

Detection and Discrimination of *Botrytis* Species, Causal Agents of Onion Bulb Rot, Using Quantitative Polymerase Chain Reactions (qPCR) Melting Curve Analysis. Udquim, K.-I. T., Arif, M., du Toit, L. J. and **Schroeder, B. K.** NSF REU Undergraduate Research Symposium, Washington State University, Pullman, WA, August 2, 2013.

“Development of a DNA Macroarray for the Detection of Bulb Rot Pathogens of Onion”. **Schroeder, B.K.**, Vahling-Armstrong, C., Humann, J.L., Knerr, A.J. and. du Toit, L. J.. Invited speaker for the Pacific Northwest Vegetable Association Annual Conference, Kennewick, WA, November 14, 2012.

“Development of a DNA Macroarray for Rapid Detection of Onion Bulb Rot Pathogens”. C. Armstrong, J. Humann, J. Knerr, L. J. du Toit, and **B.K. Schroeder**. Presentation at the Washington State University Onion Field Day, August 30, 2012.

“Effect of harvesting tubers from green or dead vines on resistance to storage rot pathogens” **B. K. Schroeder**, T. Cummings, and D.A. Johnson. Washington State University Potato Field Day, June 28, 2012.

“Role of Soft Rot Bacteria and *Verticillium* in the Potato Early Dying Complex”, Invited speaker for the Washington Oregon Potato Conference, Kennewick, WA, January 25, 2012.

Identification of pectolytic bacteria found in the Pacific Northwest. Hunt, J. Bates, A.L, Knerr, A. J., **Schroeder B. K.** NSF REU Undergraduate Research Symposium, Washington State University, Pullman, WA, August 3, 2012.

Improving the welfare of pigs and laboratory rats through the use of biodegradable starch enrichment. Walker, E.B., Lo, E., Englund, K.R., Nelson, M.L., **Schroeder B.K.**, McLean, D.J., Potter, K.A., Newberry, R.C. 2012. College of Agriculture, Human and Natural Resource Sciences, Undergraduate Research Symposium, Washington State University, Pullman, WA. Awarded second place in the undergraduate competition.

Genetic diversity of environmental and clinical strains of the *Enterobacter cloacae* complex determined by multilocus phylogenetic and genome analyses. Bates A.A., Humann J.L., Peña, J.E., Wildung, M., Drew, J.C., Peever, T.L., Main. D., Triplett, E., and **Schroeder, B.K.** 2011. Washington State University Showcase, Washington State University, Pullman, WA.

Colonization of *Enterobacter cloacae* in onion leaves. Liesche, R., Peterson, N.A., Dossey, S.M., Humann, J.L. and **Schroeder, B.K.** 2011. Sciences and Engineering Undergraduate Research Poster Competition, March 28, 2011, Washington State University, Pullman, WA.

“Impact of Curing Temperature and Duration on Bacterial Bulb Rot in Storage”. Invited speaker for the Pacific Northwest Vegetable Association at the Twenty Fifth Anniversary Conference, Kennewick, WA, November 16, 2011.

“Tuber maturity and resistance to storage pathogens.” Washington State University Potato Field Day, June 23, 2011

“Development of a macroarray for rapid detection and differentiation of onion bulb rot pathogens.” Presentation at the Washington State University Onion Field Day, August 26, 2011.

“Overview of the Onion ipmPIPE and the development of innovative disease diagnostic tools for onion diseases.” Presentation at the Washington State University Onion Field Day, August 26, 2011.

“Management of *Enterobacter cloacae*, a storage rot pathogen of onion bulbs.” 2010 National *Allium* Research

Conference, December 8, 2010.

“Biology of *Enterobacter cloacae* and Management of this Onion Bulb Rot Pathogen in Storage” Invited speaker for the Plant Science Department Seminar Series, University of Idaho, December 3, 2010.

“ipmPIPE & Innovative Disease Diagnostic Tools for Onion Growers-How You Can Contribute to this 4 Year Multistate, Federal Research and Extension Grant” Invited speaker for the Pacific Northwest Vegetable Association at the Twenty Fourth Anniversary Conference, Kennewick, WA, November 17, 2010.

“Impact of Curing Temperature and Duration on Bacterial Bulb Rot in Storage” Invited speaker for the Pacific Northwest Vegetable Association at the Twenty Fourth Anniversary Conference, Kennewick, WA, November 17, 2010.

“Grant Building” Invited speaker for the Office of Grants, Research and Development’s Productive Proposal Writing Workshop held at Washington State University, September 16, 2010.

“Grant Building” Invited speaker for the 2010 National Institute of Food and Agriculture Workshop entitled “Planning and Managing Systems Based Trans-disciplinary Projects for USDA / NIFA Programs” held at Washington State University, September 8, 2010.

“Impact of Curing Temperature and Duration on *Enterobacter* Decay of Onion Bulbs in Storage” Presentation at the Washington State University Onion Field Day, August 27, 2010.

Development of an *Enterobacter cloacae* pathogenicity assay on onion pieces. Bates, A.A., Humann, J.L. and **Schroeder, B.K.** 2010. Sciences and Engineering Annual Undergraduate Research Poster Competition, Washington State University, Pullman, WA. Recipient of the Novice Researcher Award for Biosciences.

Role of Exopolysaccharide in the Biology *Enterobacter cloacae*. Dossey, S.M., Anderson, J.L., Humann, J.L. and **Schroeder, B.K.** 2010. Washington State University Showcase, Washington State University, Pullman, WA.

Movement of *Enterobacter cloacae* in onion leaves. Peterson, Nathan, Dossey, S.M., Humann, J.L. and **Schroeder, B.K.** 2010. Washington State University Showcase, Washington State University, Pullman, WA

Movement of *Enterobacter cloacae* in onion leaves. Peterson, Nathan, Dossey, S.M., Humann, J.L. and **Schroeder, B.K.** 2010. College of Agriculture, Human and Natural Resource Sciences, Undergraduate Research Symposium, Washington State University, Pullman, WA.

Genetic diversity of *Enterobacter cloacae*. Peña, J.E., Peever, T.L., and **Schroeder, B.K.** 2010. Washington State University Showcase, Washington State University, Pullman, WA.

Genetic diversity of *Enterobacter cloacae*. Peña, J.E., Peever, T.L., and **Schroeder, B.K.** 2010. Washington State University-College of Biological Sciences Undergraduate Research Symposium, Washington State University, Pullman, WA.

“Taking a Closer Look at Bacterial Storage Rots” Presented to the Pacific Northwest Vegetable Association at the Twenty Third Anniversary Conference, Kennewick, WA, November 11, 2009.

“Biology of *Enterobacter cloacae* and its Association with Onions” Invited speaker for the Schroth Faces of the Future-Early Career Professional Symposium. Annual Meeting of the American Phytopathology Society, Portland, OR, August 1-5, 2009.

“Impact of Curing Temperature and Duration on *Enterobacter* Decay of Onion Bulbs in Storage” Presentation at the Washington State University Onion Field Day, August 27, 2009.

Role of Exopolysaccharide in the Biology *Enterobacter cloacae*. Dossey, S.M., Anderson, J.L., Humann, J.L. and **Schroeder, B.K.** 2009. Washington State University Showcase, Washington State University, Pullman, WA.

Genetic diversity of *Enterobacter cloacae*. Peña, J.E., Peever, T.L., and **Schroeder, B.K.** 2009. Washington

State University Showcase, Washington State University, Pullman, WA.

Genetic diversity of *Enterobacter cloacae*. Peña, J.E., Peever, T.L., and **Schroeder, B.K.** 2009. Washington State University-College of Biological Sciences Undergraduate Research Symposium, Washington State University, Pullman, WA.

“Impact of pectolytic bacteria and *Verticillium dahliae* on potato production” Washington State University Potato Field Days in Othello, WA, June 26, 2009.

Evaluation of Population Dynamics of *Enterobacter cloacae* on the Leaf Surfaces of Onion Plants. Thyren E.B., Legler P.J., Sires, J.L. and **Schroeder, B.K.** 2008. Washington State University Showcase, Washington State University, Pullman, WA.

Evaluation of Population Dynamics of *Enterobacter cloacae* on the Leaf Surfaces of Onion Plants. Thyren E.B., Legler P.J., Sires, J.L. and **Schroeder, B.K.** 2008. Washington State University-College of Biological Sciences Undergraduate Research Symposium, Washington State University, Pullman, WA.

“Disease Progression of *Enterobacter cloacae* on Onion Bulbs” Presented to the Pacific Northwest Vegetable Association at the Twenty Second Anniversary Conference, Kennewick, WA, November 19, 2008.

“Bacterial Problems in Onion Production” Presented to the Pacific Northwest Vegetable Association at the Twenty First Anniversary Conference, Kennewick, WA, November 13, 2007.

“Bacterial Diseases of potatoes-What is the impact on production?” Washington State University Potato Field Days in Othello, WA, June 29, 2007

“Research on Enterobacter Storage Rot of Onions in Washington: Where are we headed?” Presented to the Pacific Northwest Vegetable Association at the Twentieth Anniversary Conference, Pasco, WA, November 15, 2006.

“A Tale of Two Toxins:Molecular Genetic Studies Define the Role of Two Separate and Distinct Necrosis-Inducing Phytotoxins Produced by *Pseudomonas syringae* pv. *syringae*.” Presented to the Vegetable and Forage Research Unit, Prosser, WA, February 2005.

“A Tale of Two Toxins:Molecular Genetic Studies Define the Role of Two Separate and Distinct Necrosis-Inducing Phytotoxins Produced by *Pseudomonas syringae* pv. *syringae*.” Presented to the Subtropical Plant Pathology Research Unit, Ft. Pierce, FL, August 2004.

“Workshop-How to clone an ORFeome”. Presented at 19th North American Symbiotic Nitrogen Fixation Conference, June 2004.

“Importance of the bacterial soft rot pathogens on potato in Washington State”. Presented at the Farm Exposition and Trade Show, Hallmark Inn, Moses Lake, WA, November, 2001.

“Importance of the bacterial soft rot pathogens on potato in Washington State”. Presented at the Farm Exposition and Trade Show, TRAC, Pasco, WA, November, 2001.

“Observation of a pathogen shift among the bacterial soft rot pathogens on potato in Washington State”. Presented at the 41st Washington Potato Conference and Trade Show Program, Big Bend Community College, Moses Lake, WA February 4-6, 2002.

“Syringopeptin and Syringomycin: Two Separate and Distinct Virulence Determinants in the Arsenal of *Pseudomonas syringae* pv. *syringae*.” Presented to the USDA Grain Legume Genetics & Physiology Research Unit, Pullman WA, June 2001

“Why Does *Pseudomonas syringae* pv. *syringae* Produce Two Separate and Distinct Necrosis Inducing Phytotoxins? Molecular Genetic Studies to Define Their Roles in the Plant-Pathogen Interaction.” Presented to the USDA Plant Germplasm Introduction and Testing Laboratory Research Unit, Pullman WA, February, 1999.

Grants and Contracts Awarded:

Duellman, K., Schroeder B.K. and Woodhall, J. W.. Developing optimum strategies for bacterial rot diseases of potato. ID Specialty Crop Block Grant October 1, 2022- Sept. 30, 2024. \$144,617.00 (\$37,740 to Schroeder)

Schroeder, B.K., Determination of the impact of temperature and other curing parameters on onion bulb rot caused by *Rahnella* spp in storage. OR-ID Onion Growers July 1, 2022-June 30, 2023 \$12,977.

Schroeder, B.K., Murray, T. D, Rogers, E., Duarte A. D. and Luster, D. Developing tools for improved detection of *Anguina tritici* and the identification of new Anguinid nematodes in the Western US with the potential to vector *Rathayibacter toxicus*. August 2022 – September 2023. \$102,841

Schroeder, B.K., Woodhall, J. and Thornton, M. Determination of the impact of temperature and other curing parameters on onion bulb rot caused by *Rahnella spp* in storage. OR-ID Onion Committee. July1, 2021-May 30, 2021, \$11,632

Schroeder, B.K. and S. P. Cook. Working toward reproducible infection of Canada thistle (*Cirsium arvense*) in natural systems. July, 2021 – June, 2024, BCIFP-USDA Forest Service \$86,067. (\$64550 to Schroeder)

Schroeder, B.K., Woodhall, J. and Thornton, M. Investigating the emergence of onion leaf and bulb rot pathogens in the Treasure Valley. ISDA- Specialty Crop Block Grant Idaho. August, 2021 – September, 2023, \$145,434.00 (\$62,373 to Schroeder, B.)

Schroeder, B. K. and Murray, T. D., Luster, D., Rogers, E. Duarte, A. Detection and Biology of the Emergent and Invasive Pest Species *Rathayibacter* and Anguinid Nematodes in the Western United States August 2021- July 2022. USDA-APHIS, \$162,101. (\$45,944 to Schroeder, B.)

Schroeder, B. K., Murray, T. D., Luster, D., Rogers, E., Subbotin, S. and Duarte, A. Detection and biology of the emergent and invasive pest species *Rathayibacter* and Anguinid nematodes in the Western U.S.: Developing tools for improved detection and better understanding of vector transmission. USDA-APHIS, August 2020- July 2021. \$152,610. (\$50,000 to Schroeder, B.)

Schroeder, B.K. and Woodhall, J. Developing rapid molecular diagnostic tests for bacterial diseases of dry bean. Specialty Crop Block Grant Idaho. October 1, 2020 -September 30, 2022. \$99,827. (\$15,847 to Schroeder, B.)

Woodhall, J., Schroeder, B.K., and Thornton, M. Soil-Borne Disease Onion. ISDA-Specialty Crop Block Grant Idaho. October 1, 2019 -September 30, 2021. \$141,070 (\$26,402 to Schroeder, B.)

Schroeder, B.K., Khot, L. and Sankaran, S., Novel sensing for onion bulb loss management in bulk storage environment. OR-ID Onion Growers, July 2020 – June 2021, \$14,799

Schroeder, B. K. and Murray, T. D., Luster, D., Rogers, E. Development and validation of antibody and molecular detection tools for *Rathayibacter* agricultural threats. USDA-APHIS, August 2018- July 2019, \$113,048

Schroeder, B. K. and Murray, T. D., Luster, D., Rogers, E. Survey for gall forming nematodes of the family Anguinidae in the Western U.S. development of molecular tools for their detection and discrimination, and determination of their potential to vector *Rathayibacter toxicus*. USDA-APHIS, August 2018- June 2020, \$96,091

Schroeder, B.K., Khot, L. and Sankaran, S., Novel sensing for onion bulb loss management in bulk storage environment. OR-ID Onion Growers, July 2019 – June 2020, \$14,435

Schroeder, B.K., Khot, L. and Sankaran, S., Using field asymmetric ion mobile spectrometry for the detection of onion bulb rot in storage. Idaho State Specialty Crop Block Grant, OR-ID Onion Growers, September 2018- August 2020, \$122,170

Rosen, C. et al. Enhancing soil health in U.S. potato production systems. November 2018-October 2022, NIFA,

SCRI \$2,063,664

Schroeder, B.K., Woodhall, J. Rietz, S., Shock, C. and Thornton, M. Onion cultivar trial: Evaluation of resistance to *F. proliferatum* storage rot, OR-ID Onion Growers. June 1, 2018-May 30, 2019, \$10,068

Khot, L. Sankaran, S., Schroeder, B.K. Novel sensing for postharvest potato quality and loss management in bulk storage environment. Washington State Specialty Crop Block Grant, NIFA, September 2017- August 2019, \$225,000

Schroeder, B.K. and Thornton, M. Determination of the impact of temperature and other curing parameters on *F. proliferatum* onion bulb rot in storage, OR-ID Onion Growers, June 1, 2017-May 30, 2018, \$22,968

Schroeder, B.K., Woodhall, J. Rietz, S., Shock, C. and Thornton, M. Onion cultivar trial: Evaluation of resistance to *F. proliferatum* storage rot, OR-ID Onion Growers. June 1, 2017-May 30, 2018, \$9,968

Schroeder, B.K., Woodhall, J. and Thornton, M., Filling Knowledge Gaps in order to develop robust disease management strategies for *Fusarium proliferatum* in onions, Specialty Crop Block Grant-Idaho, Sept. 2016-Aug. 2018, \$124,664

Schroeder, B.K. and Thornton, M., Determination of the impact of temperature and other curing parameters on *F. proliferatum* onion bulb rot in storage, OR-ID Onion Growers, June 1, 2016-May 30, 2017, \$25,968

Schroeder, B.K., Characterization of Domestic *Rathayibacter* and *Anguina* Species, USDA Agricultural Research Service, Sept. 23, 2016-Aug. 30, 2017, \$5,000

Elbakidze, L. , Schroeder, B., Taylor, G., Evaluating implications of irrigation water quality regulation in fresh produce production: the case of Treasure Valley in Eastern Oregon and Southwest Idaho, USDA, 2016-2020, \$393,416

Schroeder, B.K. and Thornton, M., Reducing the incidence of bacterial decay in stored onion bulbs, OR-ID Onion Growers, June 1, 2015-May 30, 2016, \$29,532

Schroeder, B.K., Thornton, M., and Wharton, P., Developing a Roadmap Towards Sustainable Management of Soilborne Potato Diseases, Western IPM, March 1, 2015-Feb. 28, 2016, \$21,370

Wanner, Schroeder, B.K. et al., Establishing a Microbial Community and Soil Biology Baseline for Potato Soil Health, National Potato Council, April 2015-March 2016, \$79,311

Schroeder, B.K., Murray, T.D., Schneider, W. and Luster, D. Development of molecular and antibody detection tools for *Rathayibacter toxicus* and discrimination of the *Rathayibacter*, Farm Bill 10201 Suggestion/APHIS, August 2014- July 2015, \$144,488

Schroeder, B.K. and Thornton, M., Reducing the incidence of bacterial decay in stored onion bulbs, OR-ID Onion Growers, June 1, 2014-May 30, 2015, \$19,532

Schroeder, B.K., Potato Soil Health Northwest Potato Consortium, August 2014- Dec. 2015, \$30,000

Murray, T.D. and Schroeder, B.K., Evaluating the Threat of Gumming Disease of Wheat and Grasses to the Pacific Northwest, Emerging Research Issues Washington State University, Jan. 2014-June 2015, \$40,768

Schroeder, B.K., Wharton, P., Nolte, P., Ward, K., Olsen, N. Hamm, P. WA, Bacterial Ring Rot Task Force: Improving Detection and Management of Bacterial Ring Rot in Pacific Northwest Potato Production, ID and OR Potato Commission, July, 2013 – June 2014, \$49,000

Schroeder, B.K., Murray, T.D., Schneider, W. and Luster, D., Development of molecular and antibody detection tools for *Rathayibacter toxicus* and discrimination of the *Rathayibacter*, Farm Bill 10201 Suggestion/APHIS, August 2013- July 2014, \$120,000

Schroeder, B.K., and Murray, T.D., Evaluating the threat of gumming disease of wheat and grasses, Emerging Research Issues Washington State University, January, 2013-June, 2014, \$38,759

Schroeder, B.K., Murray, T.D. and Mauzey, S. Sequencing the species of *Rathayibacter*, DOE Joint Genome Institute, Community Sequencing Program, Sept. 2012-Dec. 2012, \$50,000

Schroeder, B.K. and Johnson, D.A., Evaluation of the impact of tuber maturity on disease resistance of potato tubers to storage diseases Washington State Potato Commission, July 1, 2012-June 31, 2013, \$15,742

Carris, L., du Toit, L., Inglis, D., and Schroeder, B.K., Ensuring successful transitions for women faculty in WSU's Department of Plant Pathology, WSU Advance Program, January 2011-December 2011, \$10,000

Schroeder, B.K. and Johnson, D.A. Evaluation of the impact of tuber maturity on disease resistance of potato tubers to storage diseases, Washington State Potato Commission, July 1, 2010-June 30, 2011, \$18,972

Schroeder, B.K. and Johnson, D.A. Evaluation of the role of *Verticillium dahliae* and the pectolytic bacteria in the potato early dying complex, Washington State Potato Commission, July 1, 2009-June 31, 2010, \$23,245

Dhingra, A. PI, (plus 13 cooperators from WSU including Schroeder, B.K.) REU Site: Plant Genomics and Biotechnology, NSF, Feb. 15, 2012 – Jan. 31, 2015, \$259,438

VanKirk, J., Schwartz, H.F., Laferty, J., Schroeder, B.K. Douce, K., Jibilian, G. (+ multiple cooperators from 6 states) ipmPIPE and Innovative Disease Diagnostic Tools for Onion Growers, USDA Specialty Crops Research Initiative, September 1, 2010-August 30, 2014, \$2,467,589

Schroeder, B.K. and Johnson D.A., Evaluation of the role of *Verticillium dahliae* and the pectolytic bacteria in the potato early dying complex, Washington State Potato Commission, 8/1/2010 -7/31/2011, \$22,375

Schroeder, B.K. and Johnson D.A., Evaluation of the impact of tuber maturity on disease resistance of potato tubers to storage diseases, Washington State Potato Commission 8/1/2010 -7/31/2011, \$13,826

Schroeder, B.K. and du Toit, L.J., Development of a macroarray for rapid detection and differentiation of onion bulb rot pathogens, USDA Western Region IPM, May, 2010-April, 2012, \$179,253

Schroeder, B.K. and du Toit, L.J., Evaluation of conditions promoting Enterobacter rot on storage onions in Washington State, Washington State Commission on Pesticide Registration, 1/1/2010-12/31/2010, \$7,000

Schroeder, B.K. and Johnson, D.A., Evaluation of the role of *Verticillium dahliae* and the pectolytic bacteria in the potato early dying complex, Washington State Potato Commission, 8/1/2009 -7/31/2010, \$22,375

Schroeder, B.K. and Johnson, D.A., Evaluation of the impact of tuber maturity on disease resistance of potato tubers to storage diseases, Washington State Potato Commission, 8/1/2009 -7/31/2010, \$13,826

Schroeder, B.K. and Eastwell, K., Development of Reliable Serological Detection Method for *Candidatus* 'Phytoplasma pyri' Strain PD/PYLR2 in Almond and Pear Nursery Stock, California Department of Agriculture, 8/1/2009 -7/31/2010, \$8,148

Schroeder, B.K. and du Toit, L.J., Evaluation of conditions promoting Enterobacter rot on storage onions in Washington State, Washington State Commission on Pesticide Registration, 1/1/2009-12/31/2009, \$6,977

Schroeder, B.K. and du Toit, L.J., Evaluation of conditions promoting Enterobacter rot on storage onions in Washington State, Pacific Northwest Vegetable Association, 1/1/2009-12/31/2009, \$1,000

Schroeder, B.K. and Eastwell, K., Development of Reliable Serological Detection Method for 'Candidatus Phytoplasma pyri' Strain PD/PYLR2 in Almond and Pear Nursery Stock, California Department of Agriculture, 8/1/2008 -7/31/2009, \$10,000

Schroeder, B.K. and du Toit, L.J., Washington State Commission on Pesticide Registration, Evaluation of

conditions promoting Enterobacter rot on storage onions in Washington State, 1/1/2008-12/31/2008, \$9,548

Schroeder, B.K. and du Toit, L.J. Evaluation of conditions promoting Enterobacter rot on storage onions in Washington State, Pacific Northwest Vegetable Association, 3/1/2008-12/31/2008, \$2,000

Johnson, D.A. and Schroeder, B.K., Management of Verticillium Wilt, Mint Commission, 3/1/2008-2/28/2009, \$22,000

Schroeder, B.K. and Eastwell, K., Development of Reliable Serological Detection Method for 'Candidatus Phytoplasma pyri' Strain PD/PYLR2 in Almond and Pear Nursery Stock, California Department of Agriculture 8/1/2007 -7/31/2008, \$17,092

Schroeder, B.K., The Importance of Bacterial Soft Rot Pathogens on Potato in Washington State, Washington State Potato Commission, 8/1/2007 -7/31/2008, \$23,872

Schroeder, B.K. and du Toit, L.J., Evaluation of conditions promoting Enterobacter rot on storage onions in Washington State, Pacific Northwest Vegetable Association, 3/1/2007-12/31/2007, \$5,000

Schroeder, B.K., The Development of a Molecular Marker for the Detection of the Causal Agent of Onion Bulb Decay Occurring on Storage Onions in Washington State, WSU Foundation and WSU Office of Research New Faculty Seed Grant, 5/16/2006-8/15/2007, \$15,246

Schroeder B. K., The importance of bacterial soft rot pathogens on potato in Washington State, Washington State Potato Commission, 8/1/2002 -7/31/2003, \$21,655

Honors and Awards:

SERVICE:

Major Committee Assignments:

Service to University

University of Idaho

CALS Academic Programs Advisory Curriculum Committee 2017- present

Chair 2019- present

CALS Scholarship Committee, 2017- present

CALS Scholarship Review Panel, Spring 2015

Washington State University

CAHNRS Scholarship Review Panel, Spring 2011, 2012

Faculty Panel for Graduate Student Grant Workshop Facilitated by Office of Grants and Research Development, 2010, 2011, 2012

Invited speaker for the 2010 National Institute of Food and Agriculture Workshop entitled "Planning and Managing Systems Based Trans-disciplinary Projects for USDA / NIFA Programs" held at Washington State University, 2010.

Invited speaker for the Office of Grants, Research and Development's Productive Proposal Writing Workshop, Fall 2010.

Service to Department

University of Idaho

EPPN Curriculum committee 2017-present

PSES Bifurcation Curriculum Committee 2015-2017

Washington State University

Curriculum/Teaching Committee 2006 to present

Committee member of for biennial Department Retreat, 2006

Chaired committee for biennial Department Retreat, 2008

Member of the course audit committee, 2009

Participated in the IPS/AFS retreats 2009

Student Recruiting Committee 2006 - 2009
 Fun Committee 2006 - 2009
 Organized Journal Club, 2008, 2011

**Professional and Scholarly Organizations **

Service to Profession

Committees

American Phytopathological Society Member 1993-Present

American Phytopathological Society Widely Prevalent Bacteria Committee 2012- present

American Phytopathological Society Bacteriology Committee, 2001-2005, 2008-present

American Phytopathological Society Early Career Professionals Committee, 2005-2009. Chair 2006-2007, Immediate Past Chair 2007-2008.

Responsible for helping to establish the 'Faces of the Future' Symposium

American Phytopathological Society Ad-hoc Young Professionals Committee, 2003- 2005.

Helped to determine areas that APS could better serve 'Early Career Professionals' Responsible for helping to establish the Early Career Professionals Committee

American Phytopathological Society Foundation Volunteer for Evaluating the Graduate Student Travel Grant Applications, 1995-1999, 2001

American Phytopathological Society Graduate Student Committee, 1995-1998.

Washington State University, Department of Plant Pathology, Graduate Student Representative for the Prospective Faculty Interviews, Fall 1997.

Washington State University, Department of Plant Pathology, Graduate Student Representative for the Johnson Hall Renovation Inspection Committee with Provost Gretchen Betaille, Fall 1997.

ad-hoc Manuscript Reviews

2020-*Plant Disease-2, Phytopathology -2*

2019-*Plant Disease-2, Phytopathology -2*

2018-*Plant Disease-2*

2017-*MPMI, Plant Pathology-2*

2016-*Plant Disease, Plant Pathology-3*

2015- *Plant Disease, Phytopathology -3*

2013- *Plant Disease, Current Microbiology, Spanish Journal of Agricultural Research, American Journal of Potato Research-6*

2012- *BMIC, Plant Disease, Plant Management Network, Phytopathology -10*

2011-*Plant Disease, MPMI, BMIC, Crop Protection, Microbiology, PLOS ONE-12*

2010-*Plant Disease, Journal of Food Protection, Hort Science, WSU Extension-8*

2009-*Plant Disease, Phytopathol., FEMS Microbiol. Letters, J. of Food Protection, J. of Phytopathol. -9*

2008-*Plant Disease, Journal of Applied Microbiology, Applied and Environmental Microbiology-4*

2007- *Phytopathol., Pl. Disease, The Canadian J. of Plant Pathol., The European J. of Plant Pathol. -8*

2006-*MPMI, Phytopathology, The European Journal of Plant Pathology -3*

2003-*MPMII -1*

2002-*MPMI - 1*

2001-*Physiological and Molecular Plant Pathology*

2000-*MPMI - 1*

1999-*Mycological Research*

1998-*Microbiology*

ad-hoc Grant Reviews

2011- Root Disease and Biological Control Unit Five Year Plan

2010-Invited to serve as ad-hoc reviewer for NIFA-Foundation Program, had to decline

2009-The National Science Foundation and the Louisiana Board of Regents

2009-Invited to serve on the USDA-Biology of Plant Microbe Interactions panel, had to decline
2007- USDA-Biology of Plant Microbe Interactions; U.S.-Israel Binational Science Foundation
2006-NSF-Microbial Genome Sequencing Program
2006- CDFA / Pierce's Disease Control Program

Outreach Service: (Including popular press, interview articles, newspaper articles, workshops-seminars-tours organized, Extension impact statements)

Community Service:

Jefferson Elementary School PTA Vice-President 2016-2017

Chair of the Science Fair, 2017, 2018

Member of the 5th Grade Camp Fundraiser Committee 2017, 2018

Honors and Awards:

PROFESSIONAL DEVELOPMENT: (workshops and seminars attended)

Teaching:

National Center for Case Study Teaching in Science Summer Workshop, 2012.

Scholarship:

Outreach:

Administration/Management: