

Curriculum Vitae

John A. McInroy

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Education

- 3/93 MS MS in Microbiology/Plant Pathology from Auburn University: Endophytic bacteria of sweet corn (*Zea mays*) and cotton (*Gossypium hirsutum*).
- 9/86 - 6/89 Master's topic research: Surface biochemistry of *Clavibacter xyli*, *Xylella fastidiosa* and *Spiroplasma* spp. as determined by lectins. Auburn University.
- 6/85 B.Sc. Major in Animal Biology, minor in Chemistry, Auburn University, Auburn, AL 36849.
- 8/81 - 5/82 University of Dallas, Irving, TX 75061.
- 8/80 - 8/81 Broward Community College, Davie, FL 33312.

Professional Experience

- 6/21 – present Retired, part-time Research Associate, Department of Entomology and Plant Pathology, Auburn University.
- 10/92 – 5/21 Research Associate, Department of Entomology and Plant Pathology, Auburn University.
- 6/84 - 9/84 Researcher, Goodwin Cancer Research Institute, Sunrise, FL. Technical assistance with research on the Herpes Virus. Primary focus on determining the effects of ascites fluid on murine reticulocyte division.

Teaching Experience

- 10/91 - 5/96 Phytobacteriology – lab instruction, and guest lecturer on bacterial taxonomy Auburn University.
- 3/91 Clinical Microbiology – guest lecture on bacterial identification systems, Auburn University.
- 9/86 - 6/89 Graduate Teaching Assistant - laboratory instruction associated with the following courses; Principles of Biology, Plant Biology, Perspectives in Biology, Fundamentals of Plant Physiology, and Microbial Methods, Auburn University.

Memberships

- 1986-1992 American Association for the Advancement of Science (AAAS).
- 1987-1998 American Society for Microbiology (ASM).
- 1987-1993 Auburn Microbiological Society (AMS).
- 1989-2007 American Phytopathological Society (APS).

Publications

- McInroy, J.A., Mehta, R., Hu, C.-H., and Kloepper, J.W. 2003. Enhancement of plant growth promotion by microbial communities with the addition of microbial foodbase additives. In: *Abstracts and short papers. 6th International PGPR Workshop, 5-10 October 2003, Indian Institute of Spices Research*. Reddy, M.S., Anandaraj, M., Eapen, S.J., Sarma, Y.R., and Kloepper, J.W.
- McInroy, J.A., Conner, B.M., and Kloepper, J.W. 2000. Emergence promotion in maize by soil, rhizosphere and endophytic bacilli in conjunction with solid matrix priming. Proceedings of the fifth international PGPR workshop, Córdoba, Argentina, 2000. www.ag.auburn.edu/argentina/pdfmanuscripts.
- McInroy, J.A., Qi, W., Mahaffee, W.F., Lu, S., Mei, R., and Kloepper, J.W. 1997. Comparative Evaluation of Endophytic Bacteria from Chinese and U.S. Cotton Cultivars. In: *Plant Growth-Promoting Rhizobacteria--Present Status and Future Prospects*. A. Ogoshi, K. Kobayashi, Y. Homma, F. Kodama, N. Kondo, and S. Akino, eds. Nakanishi Printing, Sapporo, Japan. pp 228-231.
- McInroy, J.A., Musson, G., Wei, G., and Kloepper, J.W. 1996. Masking of antibiotic-resistance upon recovery of endophytic bacteria. *Plant and Soil* 186:213-218.
- McInroy, J.A., and Kloepper, J.W. 1995. Population dynamics of endophytic bacteria in field-grown sweet corn and cotton. *Can. J. Microbiol.* 41:895-901.
- McInroy, J.A., and Kloepper, J.W. 1995. Survey of indigenous bacterial endophytes from cotton and sweet corn. *Plant and Soil* 173:337-342.
- McInroy, J.A., and Kloepper, J.W. 1994. Novel bacterial taxa inhabiting internal tissues of sweet corn and cotton. In: *Improving plant productivity with rhizosphere bacteria*. M.H. Ryder, P.M. Stephens, and G.D. Bowen eds. CSIRO, Adelaide, Australia. pp. 190.
- McInroy, J.A., and Kloepper, J.W. 1994. Studies on indigenous endophytic bacteria of sweet corn and cotton. In: *Molecular ecology of rhizosphere microorganisms: Biotechnology and the release of GMOs*. F.O'Gara, D.N. Dowling, and B. Boesten eds. VCH, New York. pp. 19-28.
- McInroy, J.A., and Kloepper, J.W. 1991. Analysis of population densities and identification of endophytic bacteria of maize and cotton in the field. In: *PGPR, Prospects and Challenges*. C. Keel and G. Défago, eds. IOBC/WPRS Bulletin XIV/8:328-331.

Collaborative Publications

- Kämpfer, P., Lipski, A., Lawrence, K.S., Olive, W.R., Newman, M.M., McInroy, J.A., and Viver, T. 2025. *Chryseobacterium hilariae*, sp. nov., *Sphingomonas larreae*, sp. nov., *Sphingomonas astragali*, sp. nov., *Sphingomonas radialis*, sp. nov., *Variovorax stachyos*, sp. nov., *Parapedobacter brassicae*, sp. nov., *Neorhizobium descurainiae* sp. nov., and *Erwinia artemisiae* sp. nov., isolated from dry soils revealing a diverse plant growth promoting potential. *Syst. Appl. Microbiol.* 48:126662
- Kämpfer, P., Lipski, A., Lawrence, K.S., Olive, W.R., Newman, M.M., McInroy, J.A., and Viver, T. 2025. *Flavobacterium plantiphilum*, sp. nov., *Flavobacterium rhizophilum*, sp. nov., *Flavobacterium rhizosphaerae*, sp. nov., *Chryseobacterium terrae*, sp. nov., and *Sphingomonas plantiphila* sp. nov., isolated from salty soil showing plant growth promoting potential. *Syst. Appl. Microbiol.* 48:126588
- Kämpfer, P., Glaeser, S.P., McInroy, J.A., Busse, H.-J., Clermont, D., and Criscuolo, A. 2025. Description of

Cohnella rhizoplanae sp. nov., isolated from the root surface of soybean (*Glycine max*). Antonie van Leeuwenhoek 118:41-50.

Kämpfer, P., Lipski, A., Lamothe, L., Clermont, D., Criscuolo, A., McInroy, J.A., and Glaeser, S.P. 2023. *Paenibacillus plantiphilus* sp. nov., from the plant environment of *Zea mays*. Antonie van Leeuwenhoek 116:883-892

Kämpfer, P., Lipski, A., McInroy, J.A., Clermont, D., Lamothe, L., Glaeser, S.P., and Criscuolo, A. 2023. *Paenibacillus auburnensis* sp. nov., and *Paenibacillus pseudetheri* sp. nov., isolated from the rhizosphere of *Zea mays*. Int. J. Syst. Evol. Microbiol 73:005808

Kämpfer, P., Lipski, A., Lamothe, L., Clermont, D., Criscuolo, A., McInroy, J.A., and Glaeser, S.P. 2022. *Paenibacillus allorhizoplanae* sp. nov., from the rhizosphere of a *Zea mays* root. Arch. Microbiol 204:630

Kämpfer, P., Glaeser, S.P., McInroy, J.A., Clermont, D., Lipski, A., and Criscuolo, A. 2022. *Neobacillus rhizosphaerae* sp. nov., isolated from the rhizosphere, and reclassification of *Bacillus dielmonensis* as *Neobacillus dielmonensis* comb. nov. Int. J. Syst. Evol. Microbiol 72:005636

Kämpfer, P., Glaeser, S.P., Lipski, A., McInroy, J.A., Clermont, D., and Criscuolo, A. 2022. *Sutcliffiella rhizosphaerae* sp. nov., isolated from roots. Int. J. Syst. Evol. Microbiol 72:005590

Kämpfer, P., Lipski, A., McInroy, J.A., Clermont, D., Criscuolo, A., and Glaeser, S.P. 2022. *Bacillus rhizoplanae* sp. nov., from maize roots. Int. J. Syst. Evol. Microbiol 72:005450

Kämpfer, P., Glaeser, S.P., Busse, H.-J., McInroy, J.A., Clermont, D., and Criscuolo, A. 2022. *Pseudoneobacillus rhizosphaerae* gen. nov., sp. nov., isolated from maize root rhizosphere. Int. J. Syst. Evol. Microbiol 72:005367

Kämpfer, P., McInroy, J.A., Clermont, D., Neumann-Schaal, M., Criscuolo, A., Busse, H.-J., and Glaeser, S.P. 2021. *Leucobacter soli* sp. nov., from soil amended with humic acid. Int. J. Syst. Evol. Microbiol 71:005156

Kämpfer, P., Busse, H.-J., McInroy, J.A., Clermont, D., Criscuolo, A., and Glaeser, S.P. 2021. *Paenibacillus allorhizosphaerae* sp. nov., isolated from soil of the rhizosphere of *Zea mays*. Int. J. Syst. Evol. Microbiol 71:005051

Kämpfer, P., Glaeser, S.P., McInroy, J.A., Clermont, D., Criscuolo, A., and Busse, H.-J. 2021. *Pseudomonas carbonaria* sp. nov., isolated from charcoal. Int. J. Syst. Evol. Microbiol 71:004750

Kämpfer, P., Glaeser, S.P., McInroy, J.A., Xu, J., Busse, H.-J., Clermont, D., and Criscuolo, A. 2020. *Flavobacterium panici* sp. nov., isolated from the rhizosphere of the switchgrass *Panicum virgatum*. Int. J. Syst. Evol. Microbiol 70:5824-5831.

Kämpfer, P., Bizet, C., Clermont, D., Criscuolo, A., Kloepper, L.N., Duncan, M.B., McInroy, J.A., Kloepper, J.W., Schumann, P., and Glaeser, S.P. 2019. *Filibacter tadaridae* sp. nov., isolated from within a guano pile from a colony of Mexican free-tailed bats *Tadarida brasiliensis*. Int. J. Syst. Evol. Microbiol 69:1438-1442.

- Hassan, M.K., McInroy, J.A., and Kloepper, J.W. 2019. The interactions of rhizodeposits with plant growth-promoting rhizobacteria in the rhizosphere: A review. *Agriculture* 9:142-154; doi:10.3390/agriculture9070142.
- Hassan, M.K., McInroy, J.A., Jones, J., Shantharaj, D., Liles, M.R., and Kloepper, J.W. 2019. Pectin-rich amendment enhances soybean growth promotion and nodulation mediated by *Bacillus velezensis* strains. *Plants* 8(5):120; <https://doi.org/10.3390/plants8050120>
- Kämpfer, P., Busse, H.-J., McInroy, J.A., Criscuolo, A., Clermont, D., and Glaeser, S.P. 2019. *Xinfangfangia humi* sp. nov., isolated from soil amended with humic acid. *Int. J. Syst. Evol. Microbiol* 69:2070-2075.
- Kämpfer, P., Busse, H.-J., Criscuolo, A., Bizet, C., Clermont, D., McInroy, J.A., and Glaeser, S.P. 2019. *Pigmentiphaga humi* sp. nov., isolated from soil amended with humic acid. *Int. J. Syst. Evol. Microbiol* 69:1573-1578.
- Newman, M.M., Kloepper, L.N., Duncan, M., McInroy, J.A. and Kloepper, J.W. 2018 Variation in bat guano bacterial community composition with depth. *Front. Microbiol.* 9:914. doi: 10.3389/fmicb.2018.00914.
- Liu, K., McInroy, J.A., Hu, C.-H., and Kloepper, J.W. 2018. Mixtures of plant-growth-promoting rhizobacteria enhance biological control of multiple plant diseases and plant-growth promotion in the presence of pathogens. *Plant Dis.* 102:67–72.
- Xu, J., Kloepper, J.W., Huang, P., McInroy, J.A., and Hu, C.-H. 2018. Isolation and characterization of N₂-fixing bacteria from giant reed and switchgrass for plant growth promotion and nutrient uptake. *J Basic Microbiol.* 58(5):459-471.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., Hu, C.-H., Kloepper, J.W., and Glaeser, S.P. 2017. *Paenibacillus rhizoplanae* sp. nov., isolated from the rhizosphere of *Zea mays*. *Int. J. Syst. Evol. Microbiol* 67:1058-1063.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., Hu, C.-H., Kloepper, J.W., and Glaeser, S.P. 2017. *Paenibacillus nebraskensis* sp. nov., isolated from the root surface of field-grown maize. *Int. J. Syst. Evol. Microbiol* 67:4956-4961.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2017. *Flavobacterium gossypii* sp. nov., isolated from the root tissue of field-grown cotton. *Int. J. Syst. Evol. Microbiol* 67:3345-3350.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2017. *Paracandidimonas soli* gen. nov., sp. nov., isolated from soil. *Int. J. Syst. Evol. Microbiol* 67:1740-1745.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., Hu, C.-H., Kloepper, J.W., and Glaeser, S.P. 2017. *Bacillus zeae* sp. nov., isolated from the rhizosphere of *Zea mays*. *Int. J. Syst. Evol. Microbiol* 67:1241-1246.
- Liu, K., Newman, M., McInroy, J.A., Hu, C.-H., and Kloepper, J.W. 2017. Selection and assessment of plant growth-promoting rhizobacteria for biological control of multiple plant diseases. *Phytopathology* 107:928-936.
- Xiang, N., Lawrence, K.S., Kloepper, J.W., Donald, P.A., and McInroy, J.A. 2017. Biological control of *Meloidogyne incognita* by spore-forming plant growth-promoting rhizobacteria on cotton. *Plant Dis.* 101:774-784.

- Kämpfer, P., Busse, H.-J., Kleinhagauer, T., McInroy, J.A., and Glaeser, S.P. 2016. *Saccharibacillus endophyticus* sp. nov., an endophyte of cotton. *Int. J. Syst. Evol. Microbiol* 66:5134-5139.
- Kämpfer, P., Busse, H.-J., Kloepper, J.W., Hu, C.-H., McInroy, J.A., and Glaeser, S.P. 2016. *Paenibacillus cucumis* sp. nov., isolated from a cucumber plant. *Int. J. Syst. Evol. Microbiol* 66:2599-2603.
- Kämpfer, P., Glaeser, S.P., Kloepper, J.W., Hu, C.-H., McInroy, J.A., Martin, K., and Busse, H.-J. 2016. *Isopterocola cucumis* sp. nov., isolated from the root tissue of cucumber (*Cucumis sativus*). *Int. J. Syst. Evol. Microbiol* 66:2784-2788.
- Kämpfer, P., Busse, H.-J., Kleinhagauer, T., McInroy, J.A., and Glaeser, S.P. 2016. *Sphingobacterium zeae* sp. nov., an endophyte of maize. *Int. J. Syst. Evol. Microbiol* 66:2643-2649.
- Kämpfer, P., Glaeser, S.P., McInroy, J.A., and Busse, H.-J. 2016. *Nocardioides zeicaulis* sp. nov., an endophyte actinobacterium of maize. *Int. J. Syst. Evol. Microbiol* 66:1869-1874.
- Kämpfer, P., Busse, H.-J., Glaeser, S.P., Kloepper, J.W., Hu, C.-H., and McInroy, J.A. 2016. *Bacillus cucumis* sp. nov., isolated from the rhizosphere of cucumber (*Cucumis sativus*). *Int. J. Syst. Evol. Microbiol* 66:1039-1044.
- Kämpfer, P., McInroy, J.A., Doijad, S., Chakraborty, T., and Glaeser, S.P. 2016. *Kosakonia pseudosacchari* sp. nov., an endophyte of *Zea mays*. *Syst. Appl. Microbiol.* 39:1-7.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2015. *Bacillus gossypii* sp. nov., isolated from the stem of *Gossypium hirsutum*. *Int. J. Syst. Evol. Microbiol* 65:4163-4168.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2015. *Variovorax gossypii* sp. nov., isolated from *Gossypium hirsutum*. *Int. J. Syst. Evol. Microbiol* 65:4335-4340.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2015. *Chryseobacterium sediminis* sp. nov., isolated from a river sediment. *Int. J. Syst. Evol. Microbiol* 65:4019-4024.
- Kämpfer, P., McInroy, J.A., and Glaeser, S.P. 2015. *Enterobacter muelleri* sp. nov., isolated from the rhizosphere of *Zea mays*. *Int. J. Syst. Evol. Microbiol* 65:4093-4099.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2015. *Sphingomonas zeae* sp. nov., isolated from the stem of *Zea mays*. *Int. J. Syst. Evol. Microbiol* 65:2542-2548.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2015. *Chryseobacterium arachidiradicis* sp. nov., isolated from the geocarposphere (soil around the peanut) of very immature peanuts (*Arachis hypogaea*). *Int. J. Syst. Evol. Microbiol* 65:2179-2186.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., Xu, J., and Glaeser, S.P. 2015. *Flavobacterium nitrogenifigens* sp. nov., isolated from switchgrass (*Panicum virgatum*). *Int. J. Syst. Evol. Microbiol* 65:2803-2809.
- Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2015. *Elizabethkingia endophytica* sp. nov., isolated

from *Zea mays* and emended description of *Elizabethkingia anophelis* Kämpfer *et al.* 2011. *Int. J. Syst. Evol. Microbiol* 65:2187-2193.

Kämpfer, P., Martin, K., McInroy, J.A., and Glaeser, S.P. 2015. *Novosphingobium gossypii* sp. nov., isolated from *Gossypium hirsutum*. *Int. J. Syst. Evol. Microbiol* 65:2831-2837.

Kämpfer, P., McInroy, J.A., and Glaeser, S.P. 2015. *Chryseobacterium rhizoplanae* sp. nov., isolated from the rhizosphere environment. *Antonie van Leeuwenhoek* 107:533-538.

Kämpfer, P., Martin, K., McInroy, J.A., and Glaeser, S.P. 2015. Proposal of *Novosphingobium rhizosphaerae* sp. nov., isolated from the rhizosphere. *Int. J. Syst. Evol. Microbiol* 65:195-200.

Glaeser, S.P., McInroy, J.A., Busse, H.-J., and Kämpfer, P. 2014. *Pseudogracilibacillus auburnensis* gen. nov., sp. nov., isolated from the rhizosphere of *Zea mays*. *Int. J. Syst. Evol. Microbiol* 64:2442-2448.

Glaeser, S.P., McInroy, J.A., Busse, H.-J., and Kämpfer, P. 2014. *Nocardioides zeae* sp. nov., isolated from the stem of *Zea mays*. *Int. J. Syst. Evol. Microbiol* 64:2491-2496.

Kämpfer, P., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2014. *Mucilaginibacter auburnensis* sp. nov., isolated from a plant stem. *Int. J. Syst. Evol. Microbiol* 64:1736-1742.

Kämpfer, P., Glaeser, S.P., McInroy, J.A., and Busse, H.-J. 2014. *Cohnella rhizosphaerae* sp. nov., isolated from the rhizosphere environment of *Zea mays*. *Int. J. Syst. Evol. Microbiol* 64:1811-1816.

Kämpfer, P., Poppel, M.T., Wilharm, G., Busse, H.-J., McInroy, J.A., and Glaeser, S.P. 2014. *Chryseobacterium gallinarum* sp. nov., isolated from a chicken, and *Chryseobacterium contaminans* sp. nov., isolated as a contaminant from a rhizosphere sample. *Int. J. Syst. Evol. Microbiol* 64:1419-1427.

Kämpfer, P., McInroy, J.A., and Glaeser, S.P. 2014. *Chryseobacterium zeae* sp. nov., *Chryseobacterium arachidis* sp. nov., and *Chryseobacterium geocarposphere* sp. nov. isolated from the rhizosphere environment. *Antonie van Leeuwenhoek* 105:491-500.

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Zhang, S., White, T.L., Martinez, M.C., McInroy, J.A., Kloepper, J.W., and Klassen, W. 2010. Evaluation of plant growth-promoting rhizobacteria for control of *Phytophthora* blight on squash under greenhouse conditions. *Biological control* 53(1):129-135.

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- Yan, Z., Reddy, M.S., Ryu, C.M., McInroy, J.A., Wilson, M., and Kloepper, J.W. 2002. Induced systemic protection against tomato late blight elicited by plant growth-promoting rhizobacteria. *Phytopathology* 92:1329-1333.
- Yan, Z., Ryu, C.M., McInroy, J.A., Reddy, M.S., and Kloepper, J.W. 2000. Effect of PGPR dosage on plant growth promotion and induced systemic resistance. Proceedings of the fifth international PGPR workshop, Córdoba, Argentina, www.ag.auburn.edu/argentina/pdfmanuscripts.
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- Musson, G., McInroy, J.A., and Kloepper, J.W. 1995. Development of delivery systems for introducing endophytic bacteria into cotton. *Biocontrol Science and Technology* 5:407-416.
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Kloepper, J.W., Mahaffee, W.F., McInroy, J.A., and Backman, P.A. 1991. Comparative analysis of five methods for recovering rhizobacteria from cotton roots. *Can. J. Microbiol.* 37:953-957.

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Abstracts

Alam, J., Liles, M.R., McInroy, J.A., Noel, Z.A., Goodwin, D.C. 2021 *Bacillus* secondary metabolites as potential biocontrol agents against plant pathogenic Oomycetes. APS national meeting 2021.

Hassan, M.K., McInroy, J.A., Shantharaj, D., Liles, M.R., and Kloepper, J.W. 2019. The effect of exogenous pectin amendments on soybean growth promotion by PGPR. 96th Southern Division-American Phytopathological Society (SDAPS) Meeting, Gainesville, FL, USA.

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Participation in Conferences

- 12th International Workshop on Plant Growth-Promoting Rhizobacteria, Toulouse, France, 2023.
- 11th International Workshop on Plant Growth-Promoting Rhizobacteria, Victoria, Canada, 2018.
- 10th International Workshop on Plant Growth-Promoting Rhizobacteria, Liège, Belgium, 2015.
- 9th International Workshop on Plant Growth-Promoting Rhizobacteria, Medellin, Colombia, 2012.
- 8th International Workshop on Plant Growth-Promoting Rhizobacteria, Portland, Oregon, USA 2009.

7th International Workshop on Plant Growth-Promoting Rhizobacteria, Noordwijkerhout, The Netherlands, 2006.

6th International Workshop on Plant Growth-Promoting Rhizobacteria, Calicut, India, 2003.

5th International Workshop on Plant Growth-Promoting Rhizobacteria, Córdoba, Argentina, 2000.

4th International Workshop on Plant Growth-Promoting Rhizobacteria, Sapporo, Japan, 1997.

3rd International Workshop on Plant Growth-Promoting Rhizobacteria, Adelaide, Australia, 1994.
American Phytopathological Society, Annual meeting, Portland, OR, 1992.

American Phytopathological Society, Regional meeting, Raleigh, NC, 1991.

2nd International Workshop on Plant Growth-Promoting Rhizobacteria, Interlaken, Switzerland, 1990.

American Phytopathological Society, Annual meeting, Richmond, VA, 1989.

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