- PhD 1998, Catholic University of Leuven, Department of Agricultural Engineering
- MS 1991, Catholic University of Louvain, Department of Applied Chemistry and Industrial Biology
- BA 1989, Zhejiang University (formerly Hangzhou University)

Academic Experience:

- Department of Agricultural and Biological Engineering. Purdue University: Associate Professor (2014 – Present); Assistant Professor (2011 – 2014); Research Associate Professor (1997 – 2011); Research Assistant Professor (2006 – 2010); Research Associate, Post-doc Research Associate, Senior Research Associate (1997 – 2006).
- Catholic University of Leuven, Leuven, Belgium: Research Engineer (1992 – 1996).
- Catholic University of Louvain, Louvain-la-Neuve, Belgium: Researcher (1989 – 1992).

Professional Organizations:

North America Manure Expo Committee; Center for Animal Welfare Science; Purdue Cooperative Extension Specialists' Association; International Research Center for Animal Environment and Welfare; Indiana State Poultry Association; Indiana Water Environment Association; American Society of Agricultural and Biological Engineers; Association of Overseas Chinese of Agricultural, Biological, and Food Engineers; European Cooperation in Science and Technology (COST) Association Action CA16106.

Service Activities (past five years):

Internal: Chair of ABE Visiting Scholars Committee; Member of ABE Graduate Committee.

External: Leading Editor of two *Animal Environment and Welfare* international conference proceedings in 2015 and 2017; Co-Chair of North American Manure Expo 2019; Associate Editor of *Transactions of the ASABE* and *Applied Engineering in Agriculture*; Invited reviewer for U.S. and international research proposals, and numerous refereed journal manuscripts.

Select Publications (past five years):

1. **Ni, J.-Q.**, A. J. Heber, and T.-T. Lim. 2018. Ammonia and hydrogen sulfide in swine production. In: *Air Quality and Livestock Production*, Banhazi, T., A. Aland, and J. Hartung (Eds). Florida, USA: CRC Press. 29–47.
2. **Ni, J.-Q.**, T.-T. Lim, C. Wang, and L. Zhao (Eds). 2017. *Animal Environment and Welfare - Proceedings of International Symposium*. Beijing: China Agriculture Press. 483 p.
3. **Ni, J.-Q.**, T.-T. Lim, and C. Wang (Eds). 2015. *Animal Environment and Welfare - Proceedings of International Symposium*. Beijing: China Agriculture Press. 374 p.
4. Liu, S., **J.-Q. Ni**, J. S. Radcliffe, and C. E. Vonderohe. 2017. Mitigation of ammonia emissions from pig production using reduced dietary crude protein with amino acid supplementation. *Bioresource Technology*. 233: 200–208.
5. Liu, S., **J.-Q. Ni**, J. S. Radcliffe, and C. E. Vonderohe. 2017. Hydrogen sulfide at a research swine building affected by dietary crude protein. *Journal of Environmental Management*. 204: 136–143.
6. **Ni, J.-Q.**, S. Liu, C. A. Diehl, T.-T. Lim, B. W. Bogan, L. Chen, L. Chai, K. Wang, and A. J. Heber. 2017. Emission factors and characteristics of ammonia, hydrogen sulfide, carbon dioxide, and particulate matter at two high-rise layer hen houses. *Atmospheric Environment*. 154: 260–273.
7. **Ni, J.-Q.**, A. J. Heber, T. T. Lim, S. M. Hanni, and C. A. Diehl. 2017. Laboratory evaluation of a manure additive for mitigating gas and odor releases from layer hen manure. *Aerosol and Air Quality Research*. 17: 2533–2541.
8. **Ni, J.-Q.**, C. A. Diehl, L. Chai, Y. Chen, A. J. Heber, T.-T. Lim, and B. W. Bogan. 2017. Factors and characteristics of ammonia, hydrogen sulfide, carbon dioxide, and particulate matter emissions

from two manure-belt layer hen houses. *Atmospheric Environment*. 156: 113–124.

9. **Ni, J.-Q.**, S. Liu, I. M. Lopes, Q. Xie, P. Zheng, and C. A. Diehl. 2017. Monitoring, modeling, and characterizing single-speed ventilation fans for an animal building. *Building and Environment*. 118: 225–233.
10. **Ni, J.-Q.**, S. Liu, J. S. Radcliffe, and C. Vonderohe. 2017. Evaluation and characterization of passive infrared detectors to monitor pig activities in animal environmental research. *Biosystems Engineering*. 158: 86–94.
11. Xie, Q., **J.-Q. Ni**, and Z. Su. 2017. Fuzzy comprehensive evaluation of multiple environmental factors for swine building assessment and control. *Journal of Hazardous Materials*. 340: 463–471.
12. Xie, Q., **J.-Q. Ni**, and Z. Su. 2017. A prediction model of ammonia emission from a fattening pig room based on the indoor concentration using adaptive neuro fuzzy inference system. *Journal of Hazardous Materials*. 325: 301–309.
13. Hui, X., Q. Zhu, **J.-Q. Ni**, B. Li, Z. Shi, S. Zhao, and Y. Wang. 2016. Effect of cooling pad installation on indoor airflow distribution in a tunnel-ventilated laying-hen house. *International Journal of Agricultural and Biological Engineering*. 9(4): 169–177.
14. **Ni, J.-Q.**, D. Kaelin, I. M. Lopes, S. Liu, C. A. Diehl, and C. Zong. 2016. Design and performance of a direct and continuous ventilation measurement system for variable-speed pit fans in a pig building. *Biosystems Engineering*. 147: 151–161.
15. Dai, X.-R., C. K. Saha, **J.-Q. Ni**, A. J. Heber, V. Blanes-Vidal, and J. L. Dunn. 2015. Characteristics of pollutant gas releases from swine, dairy, beef, and layer manure, and municipal wastewater. *Water Research*. 76(2): 110–119.
16. Joo, H.-S., P. M. Ndegwa, A. J. Heber, **J.-Q. Ni**, B. W. Bogan, J. C. Ramirez-Dorronsoro, and E. Cortus. 2015. Greenhouse gas emissions from naturally ventilated freestall dairy. *Atmospheric Environment*. 102: 384–392.
17. Joo, H., P. M. Ndegwa, X. Wang, A. J. Heber, **J.-Q. Ni**, E. L. Cortus, J. C. Ramirez-Dorronsoro, B. W. Bogan, and L. Chai. 2015. Ammonia and hydrogen sulfide concentrations and emissions for naturally ventilated freestall dairy barns. *Transactions of the ASABE*. 58(5): 1321–1331.
18. Neerackal, G. M., P. M. Ndegwa, H. S. Joo, X. Wang, J. H. Harrison, A. J. Heber, **J.-Q. Ni**, C. Frear, and M. Beutel. 2015. Effects of anaerobic digestion and solids separation on emissions from stored and land applied dairy manure. *Water, Air, & Soil Pollution*. 226(9): Article 301.
19. **Ni, J.-Q.** 2015. Research and demonstration to improve air quality for the U.S. animal feeding operations in the 21st century - A critical review. *Environmental Pollution*. 200(1): 105–119.
20. Page, L. H., **J.-Q. Ni**, H. Zhang, A. J. Heber, N. S. Mosier, X. Liu, H.-S. Joo, P. M. Ndegwa, and J. H. Harrison. 2015. Reduction of volatile fatty acids and odor offensiveness by anaerobic digestion and solid separation of dairy manure during manure storage. *Journal of Environmental Management*. 152: 91–98.
21. Page, L. H., **J.-Q. Ni**, A. J. Heber, N. S. Mosier, X. Liu, H.-S. Joo, P. M. Ndegwa, and J. H. Harrison. 2014. Characteristics of volatile fatty acids in stored dairy manure before and after anaerobic digestion. *Biosystems Engineering*. 118: 16–28.
22. Chen, L., T.-T. Lim, Y. Jin, A. J. Heber, **J.-Q. Ni**, E. L. Cortus, and I. Kilic. 2014. Ventilation rate measurements at a mechanically-ventilated pig finishing quad barn. *Biosystems Engineering*. 121: 96–104.
23. Zong, C., G. Zhang, Y. Feng, and **J.-Q. Ni**. 2014. Carbon dioxide production from a fattening pig building with partial pit ventilation system. *Biosystems Engineering*. 126: 56–68.

Professional development activities:

Indiana Agricultural Leadership Program (ALP Class 15), 2012 – 2014.