

Contact Information

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Lab Website: <https://theleelab.wixsite.com/home>

Research Areas and Interests

Microbiomics

Microbial Ecology

Climate Change Biology

Microbial Forensics

Teaching

BIOL 1112K, Introduction to Biological Sciences II

BIOL 2107K, Principles of Biology I

BIOL 2211K, Introduction to Microbiology

BIOL 3320K, Principles and Techniques in Water Resource

BIOL 3333K, Microbiology and Applications

BIOL 3506, Bioinformatics

BIOL 5504, Ecology

ISCI 5515, Integrated Topics of Biology

Professional Experiences

2018-present, Associate Professor, Albany State University

2013-2018, Assistant Professor, Albany State University

2009-2013, Postdoctoral Research Associate, University of Oklahoma

2005-2009, the National Research Council Research Associate, US Environmental Protection Agency

Publications

1. Daddy Gaoh S, O. Kweon, **Y.-J. Lee**, D. Hussong, B. Marasa, Y. Ahn. 2022. A Propidium Monoazide (PMAxx)-Droplet Digital PCR (ddPCR) for the Detection of Viable *Burkholderia cepacia* Complex in Nuclease-Free Water and Antiseptics. *Microorganisms* 10(5): 943. <https://doi.org/10.3390/microorganisms10050943>
2. Daddy Gaoh S, O. Kweon, **Y.-J. Lee**, J. J. LiPuma, D. Hussong, B. Marasa, Y. Ahn. 2021. Loop-mediated isothermal amplification (LAMP) assay for detecting *Burkholderia cepacia* complex in non-sterile pharmaceutical products. *Pathogens* 10: 1071. <https://doi.org/10.3390/pathogens10091071>
3. Ahn Y, B. Gibson, A. Williams, P. Alusta, D. A. Buzatu, **Y.-J. Lee** et al. 2020. A comparison of culture-based, real-time PCR, droplet digital PCR and flow cytometric methods for the detection of *Burkholderia cepacia* complex in nuclease-free water and antiseptics. *J. Ind. Microbiol. Biotechnol.* 47: 475–484.
4. Johnson TC, Brown AS, Oommen Z, Okafor U, **Y.-J. Lee**. 2020. Development of Reverse Fingerprint Lifting Techniques for Forensic Applications. *Journal of Forensic Investigation* 8(1): 8.
5. Ahn, Y., U. J. Lee, **Y.-J. Lee**, J. J. LiPuma, D. Hussong, B. S. Marasa, C. E. Cerniglia. 2019. Oligotrophic media compared with a tryptic soy agar or broth for the recovery of *Burkholderia cepacia* complex from different storage temperatures and culture conditions. *J. Microbiol. Biotechnol.* 29(10): 1495-1505. doi: 10.4014/jmb.1906.06024.
6. Wang, Y., B. Kim, A. Walker, S. Williams, A. Meeks, **Y.-J. Lee**, S. S. Seo. 2019. Cytotoxic effects of parathion, paraoxon, and their methylated derivatives on a mouse neuroblastoma cell line NB41A3. *Fundam. Toxicol. Sci.* 6(2):45-56.
7. Marimuthu, P., **Y.-J. Lee**, B. Kim, S. S. Seo. 2019. *In silico* approaches to evaluate the molecular properties of organophosphate compounds to inhibit acetylcholinesterase activity. *J. Biomol. Struct. Dyn.* 37 (2): 307-320. doi: 10.1080/07391102.2018.1426046.
8. Ahn, Y., J. M. Kim, **Y.-J. Lee**, J. J. LiPuma, D. Hussong, B. S. Marasa, C. E. Cerniglia. 2017. Effects of extended storage of chlorhexidine gluconate and benzalkonium chloride solutions on the viability of *Burkholderia cenocepacia*. *J. Microbiol. Biotechnol.* 27(12): 2211-2220. doi: 10.4014/jmb.1706.06034.
9. Tu, Q., H. Yu, Z. He, Y. Deng, L. Wu, J. D. Van Nostrand, A. Zhou, J. Voordeckers, **Y.-J. Lee**, Y. Qin, C. L. Hemme, Z. Shi, K. Xue, T. Yuan, A. Wang, J. Zhou. 2014. GeoChip 4: a functional gene-array-based high-throughput environmental technology for microbial community analysis. *Mol. Ecol. Resour.* 14: 914-928. doi: 10.1111/1755-0998.12239
10. Ahn, Y., J. M. Kim, H. Ahn, **Y.-J. Lee**, J. J. LiPuma, D. Hussong, C. E. Cerniglia. 2014. Evaluation of liquid and solid culture media for the recovery and enrichment of *Burkholderia cenocepacia* from distilled water. *J. Ind. Microbiol. Biotechnol.* 41: 1109-1118. doi: 10.1007/s10295-014-1442-3
11. **Lee, Y.-J.**, J. D. Van Nostrand, Q. Tuo, T. Yuan, L. Cheng, Z. Lu, Y. Deng, M. Q. Carter, Z. He, L. Wu, F. Yang, J. Xu, and J. Zhou. 2013. The PathoChip, a functional gene array for assessing pathogenic properties of diverse microbial communities. *ISME J.* 7:1974-1984.

Recent Grants

“Metagenome-Based Survey and Isolation of 1,4-Dioxane-Degrading Bacteria from Contaminated Soil and Groundwater at SRS” funded by Department of Energy - MSIPP (Role: Principal Investigator)

“Monitoring Tritiated Water Transport by Soil Microbiome at a Mixed Waste Disposal Site at SRS” funded by Department of Energy - MSIPP (Role: Principal Investigator)

“Surveying the Total Microbiome as Trace Evidence for Forensic Identification” funded by Department of Justice (Role: Principal Investigator)

Awards and Honors

Scholar of the Year, 2021

Education

PhD in Microbiology, 2005, The University of Georgia, Athens, GA

MS in Biology, 1993, Hanyang University, Seoul, Korea

BS in Biology, 1991, Hanyang University, Seoul, Korea