

# CURRICULUM VITAE

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**Affiliation:** Seoul National University  
Department of Biomedical Science, College of Medicine  
Department of Microbiology and Immunology, College of Medicine  
Cancer Research Institute  
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Institute of Endemic Diseases, College of Medicine  
Interdisciplinary Program in Bioinformatics, College of Natural Sciences  
Interdisciplinary Program of Cancer Biology, College of Medicine

**Field:** Microbiology / Biochemistry / Host-pathogen interaction

## Education:

2011.02 Ph.D. Korea University, College of Life Science and Biotechnology, Korea  
2008.02 M.S. Korea University, College of Life Science and Biotechnology, Korea  
2006.02 B.S. Korea University, College of Life Science and Biotechnology, Korea

## Career:

2020.09 - present Assistant Professor, Seoul National University, South Korea  
2019.04 - 2020.08 Assistant Professor, Duke-NUS Medical School, Singapore  
2017.05 - 2019.02 Associate Research Scientist, Yale University, USA  
2013.04 - 2017.04 Postdoctoral Associate, Yale University, USA  
2012.02 - 2013.02 Post-Doctoral fellow, Korea Basic Science Institute, South Korea  
2011.03 - 2011.12 Post-Doctoral fellowship, Korea University, South Korea  
2011.03 - 2012.08 Lecturer, Korea University, South Korea  
2011.09 - 2011.12 Lecturer, Dongguk University, South Korea  
2006.03 - 2010.02 Research assistant, Korea University, South Korea

## Professional Honors or Recognition:

2024.01 Extraordinary Service Award for Microbiology Spectrum journal, American Society for Microbiology  
2019.10 Khoo Pilot Award (Collaborative), The Duke-NUS Centre for Clinician-Scientist Development  
2012.02 Postdoc Research Fellowship for young Scientists, Korea Research Council of Fundamental Science and Technology  
2010.10 Outstanding research award, Federation of Korean Microbiological Societies  
2006.02 Superior Grades award of Graduation, Korea University

## Conference committee work:

2019.09 – 2020.08 The Singapore International Infectious Diseases Conference (SIIDC) 2021

- 2024.01 – 2024.12 Organizing committee of The Korean Society for Microbiology and Biotechnology 2024
- 2023.10 – 2024.09 Organizing committee of Antimicrobial Resistance Symposium in Singapore

#### **Ad hoc journal reviewer:**

Journal of Microbiology and Biotechnology  
Current Opinion in Immunology  
Microbiology Spectrum  
Journal of Bacteriology  
Biofilms and Microbiomes

#### **Journal editorial experience:**

- 2024.04 – present Editor, Discover Bacteria (Springer Nature)
- 2023.05 – present Reviewing Editor, Microbiology Spectrum (ASM journal)
- 2021.03 – present Editor, Journal of Microbiology
- 2021.08 – 2021.12 Guest editor, Pathogens
- 2021.03 – 2023.02 Guest editor, Front in Microbiology

#### **Research Publications**

1. Yun S, Min J, Han S, Sim HS, Kim SK, Lee JB, Yoon JW, **Yeom J**<sup>\*</sup>, Park W<sup>\*</sup>. Experimental evolution under different nutritional conditions changes the genomic architecture and virulence of *Acinetobacter baumannii*. *Commun Biol*. 7(1):1274, 2024. (**\*Co-corresponding authors**)
2. Lee CM, Choi Y, Choi SJ, Moon SM, Kim ES, Kim HB, Ham SY, Park JS, **Yeom J**<sup>\*</sup>, Song KH<sup>\*</sup>. The Microbiological Characteristics of *Acinetobacter Baumannii* Associated With Early Mortality in Patients With Bloodstream Infection. *Open Forum Infect Dis*. 11(7):ofae348, 2024. (**\*Co-corresponding authors**)
3. Lee M, Choi Y, Choi SJ, Moon SM, Kim ES, Kim HB, Ahn S, Lee H, Kim J, Shin DW, **Yeom J**, Park JS, Song K-H. *Staphylococcus argenteus* bacteremia in the Republic of Korea. *Microbiol Spectr*, e0279823, 2024.
4. Yee JX, Kim J<sup>\*</sup>, **Yeom J**<sup>\*</sup>. Membrane Proteins as a Regulator for Antibiotic Persistence in Gram-Negative Bacteria. *J Microbiol*, 61(3):331-341, 2023. (**\*Co-corresponding authors**)
5. **Yeom J**, Shin D, Qiao Y. Editorial: Protein homeostasis in host-pathogen interactions. *Front Microbiol*, 13:1115857, 2023.
6. Lee YJ, Kim JK, Jung CH, Kim YJ, Jung EJ, Lee SH, Choi HR, Son YS, Shim SM, Jeon SM, Choe JH, Lee SH, Whang J, Sohn KC, Hur GM, Kim HT, **Yeom J**, Jo EK, Kwon YT. Chemical modulation of SQSTM1 / p62-mediated xenophagy that targets a broad range of pathogenic bacteria. *Autophagy*, 5:1-20, 2022.
7. **Yeom J**<sup>\*</sup>, Groisman EA<sup>\*</sup>. Low cytoplasmic magnesium increases the specificity of the Lon and ClpAP proteases. *J Bacteriol*, 203(14):e0014321, 2021. (**\*Co-corresponding authors**) (**Cover image paper**)
8. **Yeom J**, Groisman EA. Reduced ATP-dependent proteolysis of functional proteins during nutrient limitation speeds the return of microbes to a growth state. *Science Signal*, 14(667): eabc4235, 2021.
9. **Yeom J**, Shao Y, Groisman EA. Small proteins regulate Salmonella survival inside macrophages by controlling degradation of a magnesium transporter. *PNAS*, 117(33): 20235-20243, 2020.

10. Gao X\*, **Yeom J\***, Groisman EA. The expanded specificity and physiological role of a widespread N-degron recognin. *PNAS*, 116(37):18629-18637, 2019. (\***Co-first authors**)
11. **Yeom J**, Groisman EA. Activator of one protease transforms into inhibitor of another in response to nutritional signals. *Genes Dev*, 33(17-18):1280-1292, 2019.
12. **Yeom J**, Pontes MH, Choi J, Groisman EA. A protein that controls the onset of a *Salmonella* virulence program. *EMBO J*, 37, No. 14 (e96977), 2018.
13. **Yeom J**, Gao X, Groisman EA. A reduction in adaptor amounts establishes degradation hierarchy among protease substrates. *PNAS*, NO. 8 (E4483-E4492), 2018.
14. **Yeom J**, Kyle WJ, Groisman EA. Sequestration from protease adaptor confers differential stability to protease substrate. *Mol Cell* 66, No. 2 (234-246), 2017.
15. Pontes MH, **Yeom J**, Groisman EA. Reducing Ribosome Biosynthesis Promotes Translation during Low Mg<sup>2+</sup> Stress. *Mol Cell* 64, No.3 (480-492), 2016.
16. **Yeom J\***, Shin JH\*, Yang JY, Kim J, Hwang GS. (1)H NMR-based metabolite profiling of planktonic and biofilm cells in *Acinetobacter baumannii* 1656-2. *PLoS One* 8, No. 3 (e57730), 2013. (\***Co-first authors**)
17. Cui Y, Kim SH, Kim H, **Yeom J**, Ko K, Park W, Park S. AFM probing the mechanism of synergistic effects of the green tea polyphenol (-)-epigallocatechin-3-gallate (EGCG) with cefotaxime against extended-spectrum beta-lactamase (ESBL)-producing *Escherichia coli*. *PLoS One* 7, No. 11 (e48880), 2012.
18. **Yeom J**, Park W. Biochemical characterization of ferredoxin-NADP(+) reductase interaction with flavodoxin in *Pseudomonas putida*. *BMB Rep* 45, No. 8 (476-481), 2012.
19. **Yeom J**, Park W. Pleiotropic effects of the *mioC* mutation on the physiology of *Pseudomonas aeruginosa* PAO1. *FEMS Microbiol Lett* 335, No. 1 (47-57), 2012.
20. Jung J\*, **Yeom J\***, Han J, Kim J, Park W. Seasonal changes in nitrogen-cycle gene abundances and in bacterial communities in acidic forest soils. *J Microbiol* 50, No. 3 (365-373), 2012. (\***Co-first authors**)
21. **Yeom J**, Lee Y, Park W. ATP-dependent RecG helicase functions in bacterial transcription. *J Biol Chem* 287, No. 29 (24492-24504), 2012.
22. **Yeom J**, Lee Y, Park W. Effects of non-ionic solute stresses on the biofilm formation and lipopolysaccharide production in *Escherichia coli* O157:H7. *Res Microbiol* 163, No. 4 (258-267), 2012.
23. Jung J\*, **Yeom J\***, Kim J, Han J, Lim HS, Park H, Hyun S, Park W. Change in gene abundance in the nitrogen biogeochemical cycle with temperature and nitrogen addition in Antarctic soils. *Res Microbiol* 162, No. 10 (1018-1026), 2011. (\***Co-first authors**)
24. **Yeom J**, Lee Y, Noh J, Jung J, Park J, Seo H, Kim J, Han J, Jeon CO, Kim TS, Park W. Detection of genetically modified microorganisms in soil using the most-probable-number method with multiplex PCR and DNA dot blot. *Res Microbiol* 162, No. 8 (807-816), 2011.
25. Lee Y, Seo H, **Yeom J**, Park W. Molecular characterization of the extracellular matrix in a *Pseudomonas putida dsbA* mutant: implications for acidic stress defense and plant growth promotion. *Res Microbiol* 162, No. 3 (302-310), 2011.
26. Lee Y\*, **Yeom J\***, Kim J, Jung J, Jeon CO, Park W. Phenotypic and physiological alterations by heterologous acyl-homoserine lactone synthase expression in *Pseudomonas putida*. *Microbiology-sgm* 156, No. 12 (3762-3772), 2010. (\***Co-first authors**)
27. **Yeom J**, Imlay JA, Park W. Iron homeostasis affects antibiotic-mediated cell death in *Pseudomonas* species. *J Biol Chem* 285, No. 29 (22689-22695), 2010.
28. Yeom S\*, **Yeom J\***, Park W. NtrC-sensed nitrogen availability is important for oxidative stress defense in *Pseudomonas putida* KT2440. *J Microbiol* 48, No. 2 (153-159), 2010. (\***Co-first authors**)
29. Yeom S\*, **Yeom J\***, Park W. Molecular characterization of FinR, a novel redox-sensing transcriptional regulator in *Pseudomonas putida* KT2440. *Microbiology-sgm* 156, No. 5 (1487-1496), 2010. (\***Co-first authors**)

30. Kim J, **Yeom J**, Jeon CO, Park W. Intracellular 2-keto-3-deoxy-6-phosphogluconate is the signal for carbon catabolite repression of phenylacetic acid metabolism in *Pseudomonas putida* KT2440. *Microbiology-sgm* 155, No. 7 (2420-2428), 2009.
  31. **Yeom J**, Jeon CO, Madsen EL, Park W. In vitro and in vivo interactions of ferredoxin-NADP<sup>+</sup> reductases in *Pseudomonas putida*. *J Biochem* 145, No. 4 (481-491), 2009.
  32. **Yeom J**, Jeon CO, Madsen EL, Park W. Ferredoxin-NADP<sup>+</sup> reductase from *Pseudomonas putida* functions as a ferric reductase. *J Bacteriol* 191, No. 5 (1472-1479), 2009.
  33. Lee Y\*, **Yeom J**\*, Kang YS, Kim J, Sung JS, Jeon CO, Park W. Molecular characterization of *fprB* (ferredoxin-NADP<sup>+</sup> reductase) in *Pseudomonas putida* KT2440. *J Microbiol Biotechnol* 17, No. 9 (1504-1512), 2007. (\*Co-first authors)
  34. Kim YH, Lee Y, Kim S, **Yeom J**, Yeom S, Seok Kim B, Oh S, Park S, Jeon CO, Park W. The role of periplasmic antioxidant enzymes (superoxide dismutase and thiol peroxidase) of the Shiga toxin-producing *Escherichia coli* O157:H7 in the formation of biofilms. *Proteomics* 6, No. 23 (6181-6193), 2006.
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