

CHAEYOUNG KWON

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Professional summary

- Hardworking and persistent researcher meticulously questioning and completing work to consistently fulfill goals. Reliable team member accustomed to taking on challenging tasks.
- Skilled team player with strong background in bacteria and molecular biology. Works well independently to handle assignments and always ready to go beyond basics assignments.
- Enjoying scientific discussion with peers coupled with analytical and problem-solving skills.
- Highly motivated to dedicate myself to accomplish any team tasks.

Skills

- **RNA work**
 - RNA extraction/purification from human cell, bacteria
 - Nanopore Direct RNA sequencing (library prep, loading, basic analysis)
 - qRT-PCR
- **DNA work**
 - Ultra Long DNA extraction (read N50 100kb)
 - Nanopore Ultra long read kit sequencing
 - Cloning for gene expression in HEK293T cell
- **Protein work**
 - Protein extraction from bacteria, human cell
 - SDS-PAGE, Western blot
 - Ni-NTA column purification
- **Bacterial culture**
 - *Escherichia coli* cloning : genomic DNA extraction ~ transformation, competent cell production
 - *Lactobacillus plantarum* : RNA extraction, real-time PCR
 - Anaerobic culture : *Bifidobacterium longum*, *Akkermansia muciniphila*, *Parabacteroides goldsteinii*
 - Growth curve, PCR, real-time PCR, Viability assessment
- **Cell culture**
 - Caco-2 : cell permeability test
 - HepG2 : induced lipid accumulation

- RAW264.7 : induced nitric oxide production
- HEK293T : transfection, luciferase assay
- THP-1 : PMA, LPS stimulation, Pulse & Chase labeling
- Cell viability test above cell types : MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) tetrazolium reduction assay
- **Animal(mouse) experiments**
 - Handling : gavage, intraperitoneal injection
 - organ sampling(blood, small intestine, large intestine, cecum, spleen, liver sampling, lung perfusion)
 - Experiences in Bio-safety level 3 facility
- **Bioinformatics**
 - Whole genome sequencing
 - Transcriptome analysis(RNA Sequencing) : Using GALAXY tool(web-based)

Experience

Post graduate student, Sang Sun Yoon, Mar 2020-current, Seoul Republic of Korea

- Researched new bacterial isolates of their roles as putative probiotics.
- Generated defined project plans and specified design requirements needed to establish key performance criteria.
- Conducted in-depth tests on bacterial isolates to evaluate their efficacy and performance.
- Attended and completed advanced training courses on operating, testing, and validating microbe-related experiments.
- Researched murine-origin specimens to be used for biomedical assessment.
- Used principles of bacterial genetics to annotate sequenced genome.
- Worked with peers to optimize animal experiments.
- Captured project outputs in appropriate format, including technical reports, presentation slides, research posters, invention disclosures and project permits.

Education

- Master of Science, Microbiology, Yonsei University – Aug 2022
- Bachelor of Science, Food Science and biotechnology CHA University – Feb 2019
 - GPA 4.31/4.5
 - Graduated with honors.