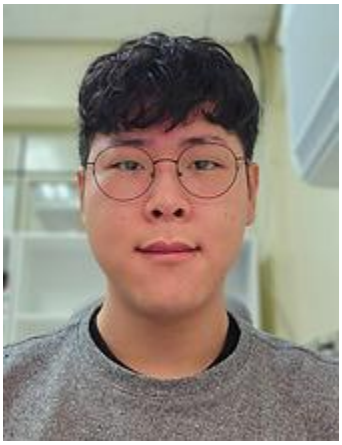

Geonho Cho

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RESEARCH INTERESTS

- Artificial cell membrane, Nanopore sensing, MD simulation, Microfluidics, Tear film lipid layer (TFLL), 3D printing.

EDUCATION

- **Ph.D. in Biological Sciences and Bioengineering**, 03/2022 - Present – Inha University, Biohybrid Systems Laboratory (BSL), PI: Tae-Joon Jeon, Sun Min Kim
- **Collaborate with MEPSGEN**, 04/2025 – Present
- **Visiting Researcher**, 04/2024 – 03/2025 – Tokyo University of Agriculture and Technology, KAWANO Lab.
- **Training**, 01/2021 and 01/2022 – Cytiva APAC Fast Trak Center. Bioprocessing Training (Up- and downstream)
- **M.S. in Biological engineering**, 03/2020 - 02/2022 – Inha University. Biohybrid Systems Laboratory (BSL), PI: Tae-Joon Jeon, Sun Min Kim
- **Internship**, 09/2015 - 12/2015 – Hanpoong Pharmaceutical. Quality control
- **B.S. in Biological engineering**, 03/2013 - 02/2020 – Inha University

Responsibilities

- **Lab manager**, 06/2022 – 02/2024 – Biohybrid Systems Laboratory

- **Student representative of graduate student union,** 07/2020 - 06/2021 – Inha University, Department of Bioengineering

JOURNAL PUBLICATIONS

International Journals

1. **Cho, G.**, Lee, D., Kim, S. M., & Jeon, T. J. (2022). Elucidation of the Interactions of Reactive Oxygen Species and Antioxidants in Model Membranes Mimicking Cancer Cells and Normal Cells. *Membranes*, *12*(3), 286. (Journal impact factor 4.562)
2. Lee, D., Song, S., **Cho, G**., Dalle Ore, L. C., Malmstadt, N., Fuwad, A., ... & Jeon, T. J. (2023). Elucidating the molecular interactions between lipids and lysozyme: Evaporation resistance and bacterial barriers for dry eye disease. *Nano Letters*, *23*(20), 9451-9460. (Journal impact factor 12.2)
3. **Cho, G**., Kim, K., Chen, W., Son, S., Jeon, T. J., & Kim, S. M. (2024). Nanopore detection of sub-nanosized plastics in PE-coated paper cups and analysis of their inflammatory responses. *Chemical Engineering Journal*, 495, 153407. (Journal impact factor 13.3)
4. **Cho, G.**, Lee, D., Song, S., Ryu, H., Jo, Y., Kang, L., ... & Jeon, T. J. (2025). Molecular perspectives on protein-modulated tear film lipid layer stability in dry eye disease. *International Journal of Biological Macromolecules*, 146182. (Journal impact factor 8.5)

Korean Domestic Journals

1. **Cho G**, Kim S. M., Jeon T. J. Trends in 3D Printed Microfluidic Devices for Biotechnology Research. Korean Society for Biotechnology and Bioengineering 2023;38:90-99. https://doi.org/10.7841/ksbbj.2023.38.2.90

CONFERENCE PRESENTATIONS (International only)

1. **Geonho Cho**, Deborah Lee, Tae-Joon Jeon* and Sun Min Kim*, “Understanding the interactions of reactive oxygen species (ROS) with cancer cell-mimicking and normal cell-mimicking membranes”, The 66th annual meeting of The Biophysical Society, San Francisco, CA., 2022
2. **Geonho Cho**, Ahmed Fuwad, Hyunil Ryu, Sichang yang, Tae-Joon Jeon*, Sun Min Kim*, “Biomimetic aquaporin membranes on a nanoporous structure for water purification”, NANO KOREA Symposium Committee, Il-san, KOREA, 2021
3. **Geonho Cho**, Sun Min Kim*, Tae-Joon Jeon*, “ARE THERE PICO(NANO)-PLASTICS IN A POLYETHYLENE COATED PAPER CUP?”, The 67th annual meeting of The Biophysical Society, San Diego, CA., 2023
4. **Geonho Cho**, Kidong Kim, Weihsuan Chen, Sejin Son, Sun Min Kim , Tae-Joon Jeon, “Detection of Sub-Nanosized Plastics in PE-Coated Paper Cups via Nanopore Sensing and Analysis of Associated Inflammatory Responses”, Lab-on-a-Chip, Microfluidics, & Organ-on-a-Chip Asia 2024, Nikko, Japan, 2024

5. **Geonho Cho**, Kidong Kim, Weihsuan Chen, Sejin Son, Sun Min Kim , Tae-Joon Jeon, “Identification of Sub-Nanosized Plastics in PE-Coated Paper Cups Using Nanopore Sensing and Evaluation of Related Inflammatory Reactions”, The Nanopore Meeting 2025, Tokyo, Japan, 2025

TEACHING EXPERIENCE

Graduate Teaching Assistant, Inha University

- Biological Engineering Laboratory 1
- Biological Engineering Laboratory 2

SKILLS

- **Artificial cell membranes:** Black lipid membrane, Liposome (symmetric, asymmetric)
- **Microfluidic system:** Mask design, Photolithography, Soft lithography, PDMS chip
- **3D modeling:** Fusion 360, 3D printing (FDM(FFF), Resin(LCD, SLA, DLP))
- **Peptide design**
- **MD simulation:** Charmm, Gromacs, Martini, Alphafold
- **Languages:** Fluent in Korean, Advanced in English and Japanese, Beginner in Russian and Chinese