TAEHEE LEE

Biomedical engineer experienced in product development process of medical and biotech devices. Seeking innovative projects requiring strong advocacy for patients/users.

RELATED EXPERIENCE

2022 | Present

Emulate, Inc.
Product Development Engineer III — Boston, MA

- Rapid product development in biotech startup environment in collaboration with product management, biologists, and multiple disciplines of engineers
- Design, develop, and manufacturing transfer of Organ-on-Chip microfluidic system consumables as lead engineer
- Prototype, refine, evaluate feasibility of, and verify designs using various prototyping methods, established test procedures, and new test strategies
- Initiate, develop, and maintain relationships with suppliers, consultants, and manufacturers to continuously improve design, assembly, and quality
- Leverage partners' expertise on manufacturing methods (injection molding, laser cutting, die cutting, micromachining, thermoplastics) to inform designs

2021 | 2022

Meinig School of Biomedical Engineering, Cornell University
Product Development - MEng Student Project — Ithaca, NY

Liquid ventilation system for management of Acute Respiratory Distress Syndrome

- Led student engineering team in designing and delivering transportable functional liquid ventilation system prototype
- Led design and verification efforts with focus on defining needs criteria
- Integrated motors, valves, pistons, and sensors with circuit design controlled by NI CompactDAQ through LABVIEW to deliver functioning liquid pumping system

2017 | 2021

Children's Hospital of Philadelphia
Research Technician III — Philadelphia, PA

Lead investigator: *A zebrafish model of Friedreich ataxia for drug screening | Screening of random shRNA-expressing library in a cellular model of MELAS*

2013 | 2016

Medtronic Diabetes
R&D Engineer — Northridge, CA

- Worked in cross-functional teams to ensure glucose sensor designs met product requirements, FDA regulatory guidelines, and international standards
- Identified and defined user needs, design requirements, specifications, and analyzed process/design risks per ISO 13485/FDA 21 CFR 820
- Improved communication of patient/physician user needs (VOC) to engineering through direct interaction with clinical sites
- Guided team members on design verification and process validation activities for product development as a technical project lead
- Contributed to bringing validation protocols, quality documentation practices, and GMP into FDA compliance as part of CAPA activities

EDUCATION

Cornell University
M.Eng. in Biomedical Engineering — Ithaca, NY

Related coursework: Project Management, Computer-Aided Engineering, Tissue Engineering, Biofluid Mechanics, Stem Cell Bioengineering, Entrepreneurship, Bioprocess Engineering, Data Science in R

University of Pennsylvania
Certificate in Pre-Health (Pre-Med) — Philadelphia, PA

Northwestern University
B.S. in Biomedical Engineering — Evanston, IL

Related coursework: Systems Physiology, Tissue Engineering, Soft Materials (Polymers)

CONTACT

taehee.r.lee@gmail.com
linkedin.com/in/taehlee
133taehee.github.io
+1 805-300-8160

PROFESSIONAL SKILLS

Project management, verbal and written interpersonal communication, user interviews, adaptability, independence, primary and secondary research, task prioritization, implementation, team coordination, diligence, persistent curiosity, broad knowledge base

TECHNICAL SKILLS

Engineering analysis and testing, product design, rapid prototyping (3D printing [SLA, FDM], CNC machining), CAD (SOLIDWORKS, Fusion 360), data analysis (Excel, Minitab, R, MATLAB), DFM/A, GD&T, COMSOL, OQ/PQ/IQ, FMEA, molecular biology techniques, MS Project

PUBLICATIONS

10.1021/acschemneuro.0c00323
10.1124/jpet.118.252759