TAFHFF I FF

Biomedical engineer/molecular biologist with experience in medical device industry and academic translational research seeking challenges requiring innovative solutions.



EDUCATION

2022

Cornell University M.Eng. in Biomedical Engineering

GPA: 4.06

Olthaca, NY

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

2017

University of Pennsylvania

Certificate in Pre-Health

Philadelphia, PA

2013

2022

2021

Northwestern University B.S. in Biomedical Engineering

Evanston. IL



RELATED EXPERIENCE

Meinig School of Biomedical Engineering, Cornell University

Product Development - MEng Project

Olthaca, NY

Liquid ventilation system for management of Acute Respiratory Distress Syndrome

- · Led engineering team in designing and delivering transportable functional liquid ventilation system prototype
- · Created CAD of components and full system for modeling physical integration
- Awarded 2nd place in Design Competition and 3rd place in Autodesk Fusion 360 Competition at Cornell's 6th Biomedical Engineering Industry Engagement Showcase
- · Guided design efforts and verification with focus on defined need criteria
- · Integrated various designed/selected mechanical, electronic, and sensor components into a functioning system

2021 2017

Children's Hospital of Philadelphia

Research Technician

Philadelphia, PA

Lead investigator: A zebrafish model of Friedreich ataxia for drug screening

- Developed and validated CRISPR-Cas9 modified zebrafish through verification of mutant genotypes, evaluation of disease-associated phenotypes and face validity
- · Manuscript in preparation

Lead investigator: Screening of random shRNA-expressing library in a cellular model of MELAS

• Identified reproducible conditions for in vitro screening, screened shRNA library and cloned candidates, investigated potentially affected pathways in MELAS

2016 2013

Medtronic Diabetes

R&D Engineer

Northridge, CA

- Collaborated in cross-functional engineering groups to ensure developing product designs met product requirements, regulatory guidelines, and international standards
- Defined design requirements, specifications, and test methodologies for product in development to be in line with all patient needs
- · Guided team members on verification, validation, and qualification activities for product development as a technical project management lead
- · Managed expectations of project supervisors while keeping team aligned with milestone goals
- Brought validation protocols and documentation practices into compliance through extensive communication with FDA representatives as part of CAPA activities over 6-month period



CONTACT

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PROFESSIONAL SKILLS

Project management, verbal and written interpersonal communication, integrity, independence, primary and secondary research, strong work ethic, attention to detail, implementation, team coordination, diligence, persistent curiosity, broad knowledge base

TECHNICAL SKILLS

Engineering analysis, medical device design, molecular biology techniques, statistical analysis (Excel, Minitab, R), CAD (Fusion 360, Solidworks), COMSOL, R, MS Project, MATLAB

PUBLICATIONS

10.1021/acschemneuro.0c00323 10.1124/jpet.118.252759