

HANNAH K. LIU

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OBJECTIVE

To pursue an opportunity in the biomedical industry in order to gain cellular and regenerative engineering experience and provide meaningful support to pharmaceutical and therapeutic medical innovation.

EDUCATION

University of Pittsburgh, Pittsburgh, PA
Expected Graduation: Apr. 2020

Bachelor of Engineering

Major: Bioengineering, *concentration Cellular/Tissue Engineering*

Minor: Chemistry

Cumulative GPA: 3.67, Dean's List

HONORS & AWARDS

Best Biomedical Engineering Paper, 2015 Annual Freshmen Engineering Conference

Presented poster at 2017 Annual BMES Meeting and Pitt Science Conference

Best Poster, 2017 Pitt Science Conference

Full Tuition Scholarship

Aug. 2015 – present

EXPERIENCE

Carmell Therapeutics, 2403 Sidney St, Pittsburgh PA 15203

R&D Co-op Intern

June 2018 – August 2019

R&D Protein and Growth Factor Assay Consultant

August 2019 – Present

Bone Healing Accelerant Product Testing

- Develop, optimize, and lead protein- and growth factor-based test method validations for release testing of a plasma-based product and intermediate components with applications in severe bone trauma
- Team collaboration and technical report writing in efforts towards Phase III Clinical Trial IND approval
- Adhering to GDP/GMP methodology, with exposure to equipment qualification and preventative maintenance

Lagasse Lab, McGowan Institute for Regenerative Medicine

Apr. 2017 – Dec. 2017

Undergraduate Research Scientist

Utilizing the Lymph Node as an Ectopic In vivo Bioreactor for Kidney Tissue

- Demonstrate ectopic kidney organogenesis in the lymph node through sectioning, staining, and imaging of kidney tissue
- Support cell culture efforts and characterize cells by quantitative real-time PCR

SERIUS Engineering Research Study Abroad Program, National University of Singapore

May 2017 – Jul. 2017

Undergraduate Research Scientist

Four-Point Fortune-Teller-Inspired Origami Grasper for Minimally Invasive Surgery (MIS)

- Review current grasper technologies for MIS
- Design and prototype a grasper device to decrease tissue injury and increase dexterity, inspired by fortune-teller-origami
- 3D print model through Solidworks and compare methods of actuation

SKILLS

Laboratory Techniques

Bead- and fluorescence-based assays
Protein & ELISA absorbance-based assays
Immunohistochemistry
Cell culture

Programs

Magellan 21CFR Software
xPONENT 21 CFR Luminex Software
iControl Software
Excel, Word
MATLAB
Solidworks

Relevant Coursework

Biochemistry
Organic Chemistry, Laboratory
Biological Systems
Human Physiology
Cellular Biology

AFFILIATIONS

Biomedical Engineering Society

Aug. 2015 – present

Theta Tau, Nu Delta Chapter, University of Pittsburgh

Dec. 2016 – present

Fundraising Chair, Rush Chair, Marshall