**YeJin Jeong**

Ph. D. Candidate (519.498.8823). jeongyejin33@gmail.com

**Professional Summary**

A highly motivated individual with strength in root-cause analysis. A capable mentor. A diligent mentee. Experienced at managing multiple projects and people. A strong believer of the good interdisciplinary teamwork resulting in advancement of health sciences, clinical research, and ultimately the improved quality of life for everyone.

**Academic Qualifications**

* **Ph.D. in Chemical Engineering, University of Waterloo *Expected August, 2022***
  + *GPA 3.30/4.00.*
  + *Expecting Collaborative Research and Training Experience Program Certificate*
  + *Tentative thesis title: Synthetic small diameter vascular graft engineering with poly(vinyl alcohol) hydrogel*
* **M.S. in Biomedical Engineering, University of Rochester September 2016 - May 2018**
  + GPA 3.67/4.00.
  + Thesis title: Application of Microbubble Technology for High-throughput Drug Screening and Characterization of Drug Resistant Cancer Cells
* **B.A.S. in Biomedical Engineering, University of Rochester September 2012 – May 2016**
  + GPA 3.50/4.00.
  + Minor in chemical Engineering

**Skills**

* Korean (fluent)
* Material Property Analysis
* Cell Culture
* Teaching/mentorship
* Data analysis
* Biological Analysis
* Communication Skills
* Critical Thinking & Problem Solving
* Microsoft Office
* Team Work
* 3D Printing
* 3D CAD Modeling
* Organizational Skills
* Interpersonal Skills

**Research Experience**

**University of Waterloo**

**Graduate student researcher August, 2018 - Present**

* Study and control mechanical properties of poly(vinyl alcohol) hydrogel
* Develop and study the effects of compliance mismatch *in vitro* using primary human smooth muscle cells
* Development of processes for testing contact lenses in collaboration with Cooper Vision
* Design and fabrication of devices using CAD modelling and 3D printing for various laboratory applications

**University of Rochester**

**Graduate student researcher September 2016 – May 2018**

* Application of Microbubble Technology for High-throughput Drug Screening and Characterization of Drug Resistant Cancer Cells
* Perform various biological assays to study drug resistant cancer cells
* Application of Microbubble Technology to Culture Salivary Gland Cells

**Research assistant December 2015 – May 2016**

* Doxycycline Clinical Study, *Endocrine* Lab

**Publications**

* **Rabbit surgery protocol for end-to-end and end-to-side vascular graft anastomosis**

*Chapter in Methods in Microbiology, Springer.* June, 2022

* **Vascular Imaging in Small Animal Using Clinical Ultrasound Scanners**

*Chapter in Methods in Microbiology, Springer.* June, 2022

* **Jeong, YeJin,** et al. "Changing compliance of poly (vinyl alcohol) vascular grafts through modifying interlayer adhesion and crosslinking density." *Frontiers in Materials* 7 (2021): 456.
* **Jeong, YeJin**, Yuan Yao, and Evelyn KF Yim. "Current understanding of intimal hyperplasia and effect of compliance in synthetic small diameter vascular grafts." *Biomaterials Science* 8.16 (2020): 4383-4395.
* **Jeong, YeJin.** *Application of Microbubble Technology for High-throughput Drug Screening and Characterization of Drug Resistant Cancer Cells*. Diss. University of Rochester. Department of Biomedical Engineering, 2018.

**Poster Presentations**

* **Changing Compliance of Poly(Vinyl alcohol) Tubular Scaffold for Vascular Graft Application**

***Won Best Poster Award*** *in Canadian Biomedical Society – SWOSC. ON, Canada* February, 2021

* **Effects of interlayer adhesion and crosslinking density on compliance of poly(vinyl alcohol) vascular graft**

*Poster presentation in Canadian Biomaterial Society. ON, Canada* May, 2021

* **Topographical modification of fucoidan-conjugated polyvinyl alcohol hydrogels for improved endothelial cell responses**

*Poster presentation in Canadian Biomaterial Society. ON, Canada* May, 2021

* **Fabrication of Compliant Vascular Graft using Polyvinyl Alcohol**

*Biomedical Engineering Society. PA, USA* October 2019

* **Characterization Of Small Diameter Curved Hydrogel Vascular Graft For Small Animal Study With Ultrasound**

*Biomedical Engineering Society. PA, USA* October 2019

* **Fucoidan modification on poly(vinyl alcohol) hydrogels for improved endothelialization and hemocompatibility**

*Biomedical Engineering Society. PA, USA* October 2019

**Management and Leadership**

**Fourth-Year Design Project Group, *Supervisor*** September, 2018 – May, 2019

* Managed a team of four undergraduate students to develop an automated system for dip-casting a mold into crosslinking solution bath for the fabrication of poly(vinyl alcohol) tubular grafts.

**Fourth-Year Design Project Group, *Supervisor*** December, 2018 – May, 2019

* Managed a team of four undergraduate students to develop an automated mechanical membrane stretcher to observe the real-time effects of cyclic stretching of corneal epithelial cells seeded on PDMS membrane.

**Tae Kwon Do, *Business Manager*** September 2013 – May 2016

* Request funding from University’s organization, arrange fundraisers by cooperating other members in club, pay the instructor, replace and purchase necessary equipment, and instruct lower rank members

**Work Experience**

**Teaching Assistant (NE481)** September 2021 – December 2021

**Teaching Assistant (NE481)** September 2019 – December 2019

**Teaching Assistant (BME266)** January 2017 – May 2017

**Teaching Assistant (BME260)** September 2016 – December 2016