

EDUCATION

- 9/2017-Present **Texas A&M University**
Ph.D. student in Biomedical Engineering
- Biomedical Device Laboratory (Advisor: Dr. Duncan J. Maitland)
 - GPA: 4.0
- 3/2015-2/2017 **Gwangju Institute of Science and Technology (GIST), South Korea**
M.E. in Materials Science and Engineering
- Biomimetic Materials Laboratory (Advisor: Dr. Jae Young Lee)
 - Master's thesis: "Facile electrochemical surface modification using peptide-pyrrole conjugates to enhance neuron/electrode interactions"
 - GPA: 4.0
- 3/2011-2/2015 **Gwangju Institute of Science and Technology (GIST), South Korea**
B.S. in Chemistry
- Bachelor's thesis: "Incorporation of Fibronectin-Derived Peptides into Conductive Hydrogels"
 - GPA: 3.7

RESEARCH INTERESTS

- Shape memory polymer foam devices for aneurysm/cardiovascular treatments
- Surface engineering of biomaterials to improve biomimetic properties or antifouling properties
- Engineering highly bioactive and biomimetic tissue scaffolds/biodevices for clinical applications
- Key words: Biomaterials, Hydrogels, Tissue engineering, Bioelectrodes, Biosensors, Biodevices, Conductive polymers

PUBLICATIONS

- **Lindy K. Jang**, Semin Kim, Jiwon Seo and Jae Young Lee. “Facile and controllable electrochemical fabrication of cell-adhesive polypyrrole electrodes using pyrrole-RGD peptides” *Biofabrication* **9**(4) (2017):1692-1695
- Semin Kim, Yohan Jang, **Lindy K. Jang**, Sung Hyuk Sunwoo, Tae-il Kim, Seung-Woo Cho, Jae Young Lee. “Electrochemical deposition of dopamine–hyaluronic acid conjugates for anti-biofouling bioelectrodes” *Journal of Materials Chemistry B* **5**(23) (2017): 4507-4513
- Semin Kim[†], **Lindy K. Jang**[†], Hyun S. Park, and Jae Young Lee. “Electrochemical deposition of conductive and adhesive polypyrrole-dopamine films” *Scientific Reports* **6** (2016): 30475 (**†contributed equally**)
- Sumi Yang[†], **Lindy K. Jang**[†], Semin Kim, Jongcheol Yang, Kisuk Yang, Seung Woo Cho, and Jae Young Lee. “Polypyrrole/alginate hybrid hydrogels: electrically conductive and soft biomaterials for human mesenchymal stem cell culture and potential neural tissue engineering applications” *Macromolecular Bioscience* (2016) DOI: 10.1002/mabi.201600148 (**†contributed equally**)
- **Yesul Jang**, Sumi Yang, Hwangjae Lee, Jongcheol Yang, Semin Kim, Solchan Chung, and Jae Young Lee. “Electrically Conducting Polymer-Based Biomaterials and Their Biomedical Applications and Development Direction” *Polymer Science and Technology* **26**(4) (2015): 273-396 (Korean conference paper)
- Jongcheol Yang, Semin Kim, **Yesul Jang**, Hyerim Jo, and Jae Young Lee. “Electrically Conducting Polymer-Based Biosensors and Bioelectrodes Applications” *Prospectives of Industrial Chemistry* **18**(6) (2015): 29-38 (Korean conference paper)

PATENTS

- J.Y. Lee, S. Kim & **Y. Jang**, The method of electrode coated with conducting polymer, (10-2015-0169435) 11/30/2015 applied
- J.Y. Lee, S. Kim & **Y. Jang**, Electrochemical method of modifying the surface of electrode by using dopamine-hyaluronic acid conjugates, (10-2016-0133487) 10/14/2016 applied

PROFESSIONAL EXPERIENCE

- 8/2017-Present **Graduate Research Assistant**
Biomedical Engineering Department, Texas A&M University
Perform research on biodegradable shape memory polymer foam
Advisor: Dr. Duncan J. Maitland
- 3/2015-2/2017 **Graduate Research Assistant**
School of Materials Science and Engineering, GIST
 - Developed conductive and biocompatible hydrogels for tissue engineering
 - Conducted research on bioelectrode coatings for neural applications
 - Analyzed cell behaviors on diverse conductive hydrogels and bioelectrodes
- 2/2014-6/2014 **Undergraduate Research Assistant**
Bioengineering Department, UC Berkeley
Performed research on the effect of storing PDMS microfluidic device immersed in water vs. in air on dye absorption from microfluidic channels into PDMS
Advisor: Prof. Luke Lee
- 3/2013-12/2014 **Undergraduate Research Assistant**
School of Materials Science and Engineering, GIST
Performed research on the incorporation of fibronectin-derived peptides into conductive hydrogels
Advisor: Prof. Jae Young Lee
- 7/2012-12/2012 **Undergraduate Research Assistant**
School of Environmental Science and Engineering, GIST
Performed research on the elimination of micro-pollutants by using UV/H₂O₂ photo-chemical water treatment
Advisor: Prof. Yunho Lee
- 9/2012-12/2012 **Undergraduate Teaching Assistant**
Division of Liberal Arts and Sciences, GIST
Course: Multivariable Calculus and Applications
Assisted undergraduate students with learning how to solve multivariable equations during TA hours and assisted the professor with grading student homework and quizzes
Advisor: Prof. Chi-Ok Hwang

TECHNIQUES

Cell culture (fibroblast, cardiomyoblast, PC12, neural stem cell, mesenchymal stem cell), tissue dissection, Potentiostat/Galvanostat, Immunocytochemistry, qPCR, Solid phase peptide synthesis (SPPS), FT-IR, ATR-IR, Rheometer, Universal testing machine, and etc.

AWARDS / FELLOWSHIPS

- Best Poster Award, Korean Society for Biomaterials (KSBM), Sep. 2015
- Best Bachelor's Thesis Award, GIST, 2015
- Best Poster Award, GIST Summer Undergraduate Research Fellowship (G-SURF), 2012
- Korean Government Graduate Student Scholarship, 2015-2017
- Undergraduate National Science & Technology Scholarship, 2011-2015
- GIST-UC Berkeley Study Abroad Program Scholarship, 2/2014-6/2014

CONFERENCE / PRESENTATION

- Korean Society for Biomaterials, "Polypyrrole/alginate hybrid hydrogels: Electrically conductive and soft biomaterials for potential tissue engineering applications" (09/18/ 2015)