Kristie L. Yang

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Av. Victor-Ruffy 7, 1012 Lausanne, Switzerland

Education

Duke University *Durham, NC* *May 2014*
Bachelor of Science in Biomedical Engineering
GPA: 3.739 out of 4.0

Computer Skills

- Proficient MATLAB, Arduino (C-based), Git, LaTeX, and Microsoft Office Suite
- Basic LabVIEW, Python, NEURON

Engineering Projects

Air Quality Monitor for Asthma and Allergy Patients *Duke University* *Aug 2013- Dec 2013*
- Built temperature, humidity, and dust sensor circuitry and wrote Arduino code to collect data and send through Bluetooth to an Android tablet
- Kept updated lab notebook to track progress of device and maintained Git repository for code

Reflow Oven Design Project *Duke University* *Mar 2013 - Apr 2013*
- Collaborated with three group members to program the heating cycle of a reflow oven using PID for the Arduino Uno

Door Lock *Independent Project* *Jul 2013 - Aug 2013*
- Programmed an Arduino LED shield to ask user for a four-number passcode and an Arduino Uno to rotate a servo if the correct passcode is entered
- Installed Arduino and servo onto dorm room door to unlock the door without a key

Research Experience

Whitaker International Research Fellow, Advisor: Dr. Stphanie Lacour *September 2014 - Present*
Pratt Research Fellow, Advisor: Dr. Lori Setton *Jan 2013 - May 2014*
Dept. of Biomedical Engineering, Duke University
- Design experiments using a brachyury reporter cell line to identify substrates promoting healthy intervertebral disc cells

Howard Hughes Research Fellow, Advisor: Dr. Lori Setton *Jun 2011 - May 2012*
Dept. of Biomedical Engineering, Duke University
- Identified laminin subunits in human intervertebral disc extracellular matrix using immunohistochemistry to provide foundation for cell-mediated disc therapies

Journal Publications & Conference Presentations

D.T. Bridgen, C.L. Gilchrist, W.J. Richardson, R.E. Isaacs, C.R. Brown, **K.L. Yang**, J. Chen, and L.A. Setton, "Integrin-mediated interactions with extracellular matrix proteins for nucleus pulposus cells of the human intervertebral disc," *Journal of Orthopaedic Research* , in press, June 2013.

K.L. Yang, D.T. Bridgen, D.P. Alcorta, L. Jing, R.E. Isaacs, C.A. Bagley, J. Chen, and L.A. Setton, "A brachyury responsive transactivation assay for quantifying the molecular phenotype of human nucleus pulposus "cells in vitro," poster presentation at the *BMES Annual Meeting*, Seattle, WA, Sept. 2013.

Leadership Experience

Catholic Center Retreat *Small Group Leader* *Jan 2012 - Apr 2012*
- Collaborated with a peer to moderate group discussions of six students at biannual retreat
- Organized and implemented monthly post-retreat small group meetings

Catholic Center Stations of the Cross Prayer Series *Coordinator* *Feb 2012 - Apr 2012*
- Planned logistics for space reservation, scheduled lectors, and cooked soup for Friday night group prayers during the six week Lenten season

Extracurricular Activities

Duke University Tour Guide *Feb 2011 - May 2014*
- Lead 1.5 hour campus tours to prospective students and families once a week

Duke Club Running *Sept 2011 - May 2014*
- Member of Duke Club Running team

Girls Engineering Change Volunteer *Sept 2013 - May 2014*
- Assist middle school girls on single-day engineering projects to promote female interest in STEM