

Jessica Li

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Term Address:
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Education: **Massachusetts Institute of Technology** Cambridge, MA
Candidate for S.B. in Biological Engineering June 2013
Relevant coursework (including current coursework): Instrumentation and Measurement for Biological Systems; Fields, Forces, and Flows in Biological Systems; Analysis of Biomolecular and Cellular Systems; Molecular, Tissue, and Cell Biomechanics; Thermodynamics of Biomolecular Systems; Differential Equations; Cell Biology; Genetics; Organic Chemistry

Experience: **Covidien** North Haven, CT
In-vitro Diagnostics and Research Lab - R&D Intern June 2012 – August 2012

- Quantified wound healing proteins expression using Dot Blot and Western Blot, and compared protein levels from cells grown on different materials
- Performed phage display to determine binding sequences for growth factor
- Determined the hydrophobicity of various surfaces using captive bubble contact angles

Massachusetts Institute of Technology Cambridge, MA
Griffith Laboratory - Undergraduate Research Assistant January 2011 – February 2012

- Modified bone regeneration scaffolds with growth factor and adhesion receptor ligands for better bone wound healing in the operating room
- Worked on producing binding protein sequences to bind growth factor to scaffold and using phage display to determine better binding sequences for various polymers
- Determined number of cells and tracked cell movements on clinical TCP scaffolds using IMARIS

Massachusetts Institute of Technology Cambridge, MA
Introduction to Molecular Biology Techniques (IAP Course) January 2010

- Isolated and made preliminary characterization of a novel bacterial virus, and identified bacterial strains by 16S rRNA sequence analysis
- Techniques used: CsCl density gradient preparation and ultracentrifugation, genomic DNA extraction and purification, DNA restriction digests and Agarose gel electrophoresis, oligonucleotide design and PCR, DNA cloning and bacterial transformation

Massachusetts Institute of Technology Cambridge, MA
Women's Technology Program - Residential Assistant June 2010 – August 2010

- Maintained a warm community in the dorm and advised students on residential issues
- Assisted students in lab during Motor Building project

Leadership: **Academics: Associate Advisor** September 2010 – May 2011, September 2012 - present

- Advise first year students on adjusting to college life and academics at MIT

MIT Society of Women Engineers: VP of Campus Relations December 2010 – December 2011

- Act as the liaison between MIT and MIT SWE by overseeing the planning of events centered on forming professor-student and peer-to-peer relations
- Manage 10 chairs and ensures each pair of co-chairs plans 2-3 interesting and unique events per semester, follows the deadlines associated with the events, and stays within the budget
- Applied for and won the Boeing Foundation Multicultural Award for MIT SWE

MIT Alpha Chi Omega Sorority: Chi Connections Committee January 2011 – May 2011

- Plan sister bonding activities during informal chapter meetings with 4 other committee members

Skills: **Computer:** Programming in Python and Matlab, ImageJ, IMARIS
Foreign Language: Fluent in Mandarin