

Dacie Manion

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305 Memorial Drive
Cambridge, MA 02139

EDUCATION

Massachusetts Institute of Technology (MIT)

Cambridge, MA

- Candidate for a Bachelor of Science degree in Engineering with a focus in Biomedical Engineering, June 2015
Minor in Mandarin Chinese

Old Town High School

Old Town, ME

- Valedictorian; Honors Diploma; GPA: 4.0; SAT: 2370 June 2011
- 2011 National Merit Finalist

EXPERIENCE

David H. Koch Institute for Integrative Cancer Research

Cambridge, MA

Undergraduate Researcher, Langer Lab

January 2012 – Present

- Assist in the development of hydrogel contact lenses as a drug delivery device for the eye.
- Synthesize drug-polymer films and encapsulate films in hydrogel contact lenses using UV polymerization.
- Conduct release kinetics experiments for quantifying the drug release profile of contact lens samples.

Mount Desert Island Biological Laboratory

Salisbury Cove, ME

Research Fellow, Strange Lab

June 2011 – August 2011

- Investigated the role of the *C. elegans* nervous system in regulating cellular osmotic stress responses.
- Presented joint research poster at annual Student Symposium and won Best Poster Presentation award.
- Co-authored abstract for research to be presented at the Experimental Biology Conference in April 2012.

Research Fellow, Community Environmental Health Laboratory

June 2010 – August 2010

- Collected data on the effects of temperature variation on *Zostera marina* flowering patterns through daily measurements and observations of water quality and *Zostera marina* growth.
- Presented research at annual Student Symposium and received Runner-Up Best High School Student Talk award.
- Participated in restoration of *Zostera marina* populations in Frenchman Bay.
- Monitored water quality and red tide phytoplankton around Mount Desert Island, reporting data to Maine Healthy Beaches and the Maine Department of Marine Resources.
- Mentored twelve middle-school students in Young Environmental Leaders Program by teaching water quality data collection and GPS skills, assisting with GIS mapping, and supervising *Zostera marina* transplantation.

Participant, Summer Academy in Genomics

August 2010

- Learned and practiced molecular biology techniques in order to amplify and sequence DNA.
- Investigated human genetic diseases using bioinformatics tools and web-based biological databases.
- Evaluated the ethics of human genome biology and personalized medicine in a workshop led by Dana Waring, Ph.D., Harvard University Personal Genetics Education Program.

LEADERSHIP & ACTIVITIES (selected)

MIT Society of Women Engineers, *National Member*

January 2012 - Present

MIT Varsity Cross Country and Track & Field, *Team Member*

August 2011 – Present

Old Town High School National Honor Society, *President*

June 2010 – June 2011

Army Junior Reserve Officers' Training Corps, *Battalion Commander (2010-2011)*

September 2007 – June 2011

Old Town High School Key Club, *President (2009-2010)*

September 2007 – June 2011

Old Town High School Envirothon Team, *Team Member*

September 2007 – May 2011

Young Adults with Pizzazz Community Service Youth Group, *Volunteer*

May 2009 – May 2011

AWARDS & HONORS (selected)

Maine Society of Professional Engineers Scholarship

2011

- Awarded for interest in engineering, academics, extracurricular involvement, and work experience.

Society of Automotive Engineers Tau Beta Pi/SAE Engineering Scholarship

2011

- Selected to recognize engineering students of superior scholarship and exemplary character.

Student Athlete Milk Mustache of the Year Scholarship

2011

- Presented by America's Milk Processors (the "GOT MILK?" campaign) and USA TODAY for excellence in academics, athletics, community service, and leadership. One of 25 scholar-athletes selected nationally and honored at a ceremony in Orlando, FL.

WBRC Architects-Engineers Centennial Scholarship

2011

- Honored for academic accomplishments, good citizenship, and engineering degree plans.