

Lauren Adelaar

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Education:

Massachusetts Institute of Technology-Cambridge, MA
Candidate for Bachelor of Science in Biological Engineering

Graduation Date: June 2017

- Current GPA: 4.4/5.0
- Current Coursework: Thermodynamics of Bio molecular Systems, Organic Chemistry, Biomaterials: Tissue Interactions, Introduction to Computer Science Programming in Python, Introduction to Computational Thinking and Data Structure
- Relevant Coursework: Introductory Biology, Principles of Chemical Science, Physics Electricity and Magnetism, Differential Equations

Keller High School-Keller, TX

Graduation Date: June 2013

- AP Scholar with Distinction and National Merit Finalist
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Work Experience:

MIT Undergraduate Research, Koch Institute for Integrative Cancer Research **January 2014-Present**
Irvine Lab—Cancer Immunotherapy under the supervision of postdoctoral fellow Gregory Szeto, PhD

- Fabricating micro-needles composed of various materials, loaded with different viruses, drugs, and drug-loaded micro/nanoparticles, to aid in the development of a transgenic murine model for melanoma
 - Characterizing the above model by monitoring tumorigenic progression via visual observation and measurement, confocal microscopy, and intra-vital microscopy
 - Utilizing the above model for in vivo testing of immunomodulation of the Aryl-hydrocarbon Receptor (AhR) signaling pathway.
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Technical Skills:

- **Laboratory Skills:** Confocal Microscopy, Micro-needle Fabrication, Micro/Nano-particle fabrication for drug encapsulation, Particle sizing, UV/Visible Spectrophotometry, Extensive Mouse Handling Techniques (Breeding, Injections, Bleeding, etc.), Aseptic Techniques, Tissue Harvesting, Histological Staining, Data analysis using LSM imaging software, ImageJ, and Fiji.
 - **Computer Programming:** Intermediate level programing in Python and Java
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Leadership/Activities:

Tailgating Committee

August 2014-Present

- Co-Founder and Lead Publicist- Responsible for planning and publicizing school tailgates for various sporting events.

MIT Cheer

September 2014-Present

- Member of the Cheer team. Compete at local and national competitions.

Journal Club

June 2014- August 2014

- Reading and analyzing journal articles relevant to cell-based vaccines and cancer immunotherapy

Musical Performance

August 2006- Present

- 8 years experience playing soprano, alto, and tenor saxophones with specialty on the alto. Performed in various concert bands and honor groups in competition and formal settings such as Bass Hall of Fort Worth, TX