

JOSHUA MAYOURIAN

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(516)-567-4840 ◊ mayour@cooper.edu

EDUCATION

Icahn School of Medicine at Mount Sinai

M.D./Ph.D. in Design, Technology, and Entrepreneurship Candidate

Projected May 2022

Cooper Union for the Advancement of Science and Art

M.E., B.E. in Chemical Engineering; Minor in Biomedical Engineering

Overall GPA: 3.9/4.0; Major GPA: 3.9/4.0

May 2014

PROJECT WORK/RESEARCH

Electrophysiology Researcher

Icahn School of Medicine at Mount Sinai (ISMMS)

June 2013 - September 2014

New York, NY

- Mathematically modeled the electrical interactions of human mesenchymal stem cells (hMSCs) and cardiomyocytes (CMs)
- Learned how to patch clamp in a whole-cell configuration for excitable and non-excitable cell

Biochemical Engineering Designer

Cooper Union for the Advancement of Science and Art

January 2014 - May 2014

New York, NY

- Designed a biochemical plant to produce 50 million doses of trivalent influenza vaccine annually.

Tissue Engineering Researcher and Bioreactor Designer

Icahn School of Medicine at Mount Sinai

June 2012 - October 2012

New York, NY

- Developed a biomathematical model of paracrine signaling between MSCs and CMs using biotransport phenomena
- Designed a novel bioreactor for co-culturing multiple engineered cardiac tissue

Orthopedic Clinical Researcher

Elmhurst Hospital

June 2011 - September 2011

Elmhurst, NY

- Learned to read X-rays to classify intertrochanteric fractures (AO classifications) after a percutaneous compression plating

Biomedical Engineering Designer

Cooper Union for the Advancement of Science and Art

September 2010 - December 2010

New York, NY

- Designed an exercise machine that stimulates obese users by outputting user's peddling speed to a racing video game

TEACHING EXPERIENCE

Graduate Bioelectricity Course Teacher Assistant

Cooper Union for the Advancement of Science and Art

January 2013 - June 2013

New York, NY

- Created homework assignments and solutions, and graded both homework assignments and exams
- Assisted students out of class with any questions they had regarding the course material

Tutor

Self-Employed

January 2009 - June 2010

Roslyn, NY

- Instructed high school and middle school students one-on-one in Math, Physics, Chemistry, Earth Science, and Spanish

SKILLS

Laboratory Equipment

- Patch Clamp, GC, Mass Spec., Absorption Spec., IR Spec., Fluorescence Spec., HPLC, UV-Vis Spectroscopy, ELISA

Computer Languages and Programs

- MATLAB, HTML, CSS, Python, QBasic, L^AT_EX
- CellML, COMSOL, Pro/II Processing Engineering Software, AutoCAD, Solidworks, Mastercam, Microsoft Office

Languages

- Fluent in Hebrew and English and conversant in Spanish and Persian

HONORS

N.I.H Fully-Funded Medical Scientist Training Program, ISMMS 2014

Daniel Okrent Cooper Fund Scholar, The Cooper Union 2013

Goldwater Scholarship Honorable Mention, 2013

Deans List, The Cooper Union, Fall 2010, Spring 2011, Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2014

Full-tuition Scholarship, The Cooper Union, 2010-2014

MEMBERSHIPS

The Cooper Union Basketball Team, Starting Point Guard, Captain

Tau Beta Pi, Secretary, Member, Engineering Honors Society

September 2010 - Present

September 2012 - Present