# **Kevin Axelrod**

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Permanent Address: 1071 Tyler Drive, Newtown Square, PA 19073

### **EDUCATION**

### Harvard University, Cambridge, MA

Expected May 2016

Candidate for Doctor of Philosophy in Biophysics, Graduate School of Arts and Sciences

## University of Pennsylvania, Philadelphia, PA

May 2011

Master of Science in Physics, College of Arts and Sciences GPA for M.S. coursework: 3.88/4.00

### University of Pennsylvania, Philadelphia, PA

May 2011

Bachelor of Arts in Physics, Biophysics, and Biochemistry, College of Arts and Sciences Cumulative GPA: 3.88/4.00, Summa Cum Laude, Phi Beta Kappa

## RESEARCH EXPERIENCE

### **Graduate Student Researcher**

June 2012 – current

Department of Physics, Massachusetts Institute of Technology, Cambridge, Massachusetts

• Working with Jeff Gore to study critical slowing down of cellular protein levels as an early indicator of cell state switching

#### **Research Assistant**

May 2009 – May 2010, September 2010 – May 2011

Department of Physics and Astronomy, University of Pennsylvania, Philadelphia, Pennsylvania

• Worked with Jay Kikkawa utilizing computationally designed peptides to selectively solubilize single-walled carbon nanotubes according to chirality vector

Summer Research Intern Summer 2010

Department of Biochemistry and Biophysics, UC San Francisco, San Francisco, California

• Worked with Geeta Narlikar exploring the effect of DNA sequence on nucleosome patterning *in vitro* and in *S. Cerevisiae* 

Summer Research Intern Summer 2008

Department of Synthetic Biology and Bioenergy, J. Craig Venter Institute, Rockville, Maryland

• Worked with Dan Gibson to isolate large quantities of a synthetic *Mycoplasma* genitalium genome for use in the creation of a synthetic microbial cell

#### **PUBLICATIONS**

- Grigoryan G, Kim YH, Acharya R, **Axelrod K**, Jain RM, Willis L, Drndic M, Kikkawa JM, DeGrado WF. Computational design of virus-like protein assemblies on carbon nanotube surfaces. *Science* May 2011.
- Gibson DG, Benders GA, **Axelrod KC**, Zaveri J, Algire MA, Moodie M, Montague MG, Venter JC, Smith HO, Hutchison CA 3rd. One-step assembly in yeast of 25 overlapping DNA fragments to form a complete synthetic Mycoplasma genitalium genome. *PNAS* December 2008.

## **AWARDS**

Barry M. Goldwater Scholarship winner

2010 - 2011

A prestigious national scholarship awarded to outstanding undergraduates in math, science, and engineering

A two-year, full-tuition merit scholarship that challenges advanced science students to complete a M.S. in addition to a B.A. during four years of undergraduate study

## **LEADERSHIP EXPERIENCE**

#### **Executive Board Member**

General body member 2007 – 2011

University of Pennsylvania chapter of Operation Smile

Board member 2008 – 2011

Helped with fundraising and awareness raising about cleft lips and cleft palates

**Student Tutor** 2007 – 2011

West Philadelphia Tutoring Project

Tutored a fifth grader named Danny at Locke Elementary School in math and reading

## **Organic Chemistry Workshop Coordinator**

Tutor 2009 - 2011

Coordinator 2010 – 2011

University of Pennsylvania Tutoring Center

Held problem solving workshops to help Penn students succeed in organic chemistry As coordinator, handled administrative duties and hired new tutors

## **SKILLS AND INTERESTS**

Languages: Spanish (intermediate)

Computers: Microsoft Word, Excel, and PowerPoint, MATLAB, LabVIEW

Interests: tennis, surfing, skiing, Ultimate Frisbee, reading Harlan Coban and Lee Child novels