

# Daniel J. Kats

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## EDUCATION

**Case Western Reserve University**, Cleveland, OH

Doctor of Medicine

Expected May 2020

- Longitudinal Patient Navigator Elective (ongoing)
  - Help a newly arrived family of refugees navigate through their healthcare
  - Assigned to a family physician preceptor at an FQHC in Cleveland, OH
- Cancer Survivorship Elective
  - Traveled weekly to a community-based cancer support center to meet cancer survivors, their caretakers, and the support center's staff to learn about various aspects of cancer survivorship
- Applied Medical Spanish – Intermediate

**Brandeis University**, Waltham, MA

Bachelor of Science in Biochemistry

May 2016

- Summa cum laude, GPA 3.85
- Thesis – high honors: “Inosine 5'-monophosphate dehydrogenase: A collection of mysterious binding sites and regulation”

## TRAINING

**The North Coast Conference on Precision Medicine**

The Institute for Computational Biology

Case Western Reserve University, Cleveland, OH

September 29, 2016

**Implementation Science Conference**

Case Western Reserve University, Cleveland, OH

December 2, 2016

**Global Health Workshop 2017**

Cleveland Clinic, Cleveland, OH

February 11, 2017

**Abortion Training Institute**

Medical Students for Choice, Philadelphia, PA

February 24 – 26, 2017

**Summer Institute for Medical Students**

Hazelden Betty Ford, Rancho Mirage, CA

June 5 – 9, 2017

**The Telluride Experience:**

**Transforming Mindsets II – Patient Safety Summer School**

The Academy of Emerging Leaders in Patient Safety, Telluride, CO

June 11 – 15, 2017

## HONORS AND AWARDS

- Phi Beta Kappa honor society May 2016
- NIH Computational Neuroscience Training Fellowship (R90DA033463) May 2014 – May 2016

- Attendance scholarships (see TRAINING)
  - [The North Coast Conference on Precision Medicine](#) September 29, 2016
  - [Abortion Training Institute](#) February 24 – 26, 2017
  - [Summer Institute for Medical Students](#) June 5 – 9, 2017
  - [Transforming Mindsets II – Patient Safety Summer School](#) June 11 – 15, 2017

## WORK EXPERIENCE

**S.M.Art School**, Newton Centre, MA

Math and Chess Teacher

November 2009 – June 2016

- Developed personalized curricula for each class, based on students' needs
- Required students to teach each other to demonstrate complete understanding, while practicing public speaking
- Built student self-confidence by teaching material several years ahead of grade level

## RESEARCH EXPERIENCE

**Hedstrom Laboratory**, Brandeis University, Waltham, MA

Undergraduate Researcher

September 2013 – May 2016

Computational Neuroscience Fellow

May 2014 – May 2016

- Project: *Escherichia coli* inosine 5'-monophosphate dehydrogenase lysine acetylation
- Designed and implemented method of *in situ* chromosomal mutations without using biomarkers or scars (in collaboration with [Lovett Laboratory](#))
- Designed and wrote Python scripts to analyze IC<sub>50</sub> data of hundreds of inhibitors used with inosine 5'-monophosphate dehydrogenase (IMPDH) from different organisms
  - Goal: Find quick, easy, and cheap way to functionally categorize previously unused strains of IMPDH by using a small set of inhibitors
  - Developed method to reduce entire set of inhibitors to a small representative subset
  - Found drug outliers
  - Visualized data to find patterns, drugs/enzymes of interest

## BIBLIOGRAPHY

### Non-Peer Reviewed

**Kats, DJ.** [Inosine 5'-monophosphate dehydrogenase: A collection of mysterious binding sites and regulation](#) [honors thesis]. Waltham, MA: Brandeis University (2016).

### Poster Presentations

**Kats DJ**, Gollapalli D, Dang Y, Hedstrom L. "[Moonlighting Interactions of IMPDH Affect \*Escherichia coli\* Growth.](#)" SciFest V; Waltham, MA (2015). (Poster #2015.421 presented by **Kats, DJ.**)

**Kats DJ**, Gollapalli D, Dang Y, Hedstrom L. "[Moonlighting Interactions of \*Escherichia coli\* IMPDH.](#)" SciFest IV; Waltham, MA (2014). (Poster #2014.311 presented by **Kats, DJ.**)

## INSTITUTIONAL SERVICE

**Student Committee on Admissions**, Case Western Reserve University School of Medicine  
Co-Chair January 2017 – January 2018

- Coordinate interviews, tours, lunches, hosting, and Second Look Weekend
- Attend Admissions Committee Meetings as a non-voting participant

## COMMUNITY SERVICE

**SPECTRUM, Waltham Group**, Brandeis University, Waltham, MA

Coordinator

November 2014 – May 2016

Volunteer

September 2012 – November 2014

- Ran weekly tutoring, mentoring, and playgroup (with parent social group) programs
- Received **Waltham Special Education Parent Advisory Council's** Rising Star (2015) and Kelly Beaumont-Mazzarini Inclusion (2016) awards
- Received **Greater Waltham Arc's** "Rags" **LaCava Community Service Award** (2015)
- Planned and hosted annual educational events about developmental disabilities
- Managed nonprofit budget (over \$6,000)
- Grew volunteer base from thirty to sixty members

**Newton-Wellesley Hospital**, Newton, MA

Volunteer

April 2010 – August 2015

- Worked in Day Surgery, Emergency Radiology, Medical/Surgical Units, and Emergency Department
- Assisted nurses with paperwork
- Arranged transportation for discharged patients
- Provided blankets, snacks, and water to patients

## SKILLS

- Languages
  - Russian: fluent
  - Spanish: intermediate conversational and medical
- Programming in Python, Java, MATLAB, and R (some formal instruction)
- Basic web development: HTML, CSS, and JavaScript (self-taught)
- Document typesetting:  $\text{\LaTeX}$  (self-taught)

## INTERESTS

Bollywood films and dance, ballroom dancing, computer programming, baseball, and skiing