Daniel J. Kats

EDUCATION

Case Western Reserve University, Cleveland, OH
Doctor of Medicine   Expected May 2020

Brandeis University, Waltham, MA
Bachelor of Science in Biochemistry   May 2016
- Summa cum laude with high honors, GPA 3.85
- Thesis: "Inosine 5'-monophosphate dehydrogenase: A collection of mysterious binding sites and regulation"

TRAINING

2018 Annual Meeting
Family Medicine Education Consortium, Rye Brook, New York   November 9 – 11, 2018

Accelerating Change in Medical Education Consortium
Student-Led Conference on Health Systems Science
American Medical Association, Hershey, PA   Aug 3 – 4, 2018

American Thoracic Society International Conference
American Thoracic Society, San Diego, CA   May 18 – 23, 2018

Family Planning Conference
Medical Students for Choice, Philadelphia, PA   December 2 – 3, 2017

Bleeding Control Basic Course
Stop the Bleed, Cleveland, OH   November 27, 2017

2017 Inclusion Summit
Ruderman Family Foundation, Cleveland, OH   November 19 – 20, 2017

2017 Annual Meeting
Family Medicine Education Consortium, Cleveland, OH   November 10 – 12, 2017

UltraSound Fest
The Ohio State University, Columbus, OH   October 8, 2017

State-of-the-Art Reviews in Neonatal-Perinatal Medicine
The MetroHealth System, Cleveland, OH   October 7, 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

Summer Institute for Medical Students
Hazelden Betty Ford, Rancho Mirage, CA   June 5 – 9, 2017

Abortion Training Institute
Medical Students for Choice, Philadelphia, PA   February 24 – 26, 2017

Global Health Workshop 2017
Cleveland Clinic, Cleveland, OH   February 11, 2017

Implementation Science Conference
Case Western Reserve University, Cleveland, OH   December 2, 2016

The North Coast Conference on Precision Medicine
The Institute for Computational Biology
Case Western Reserve University, Cleveland, OH   September 29, 2016

HONORS AND AWARDS

- Lepow Day oral presentation (see BIBLIOGRAPHY #3)   September 28, 2017
  - One of 11 students chosen to give a 10 minute oral presentation (the highest level of achievement) out of over 190 submitted abstracts
- Phi Beta Kappa honor society   May 2016
- NIH Computational Neuroscience Training Fellowship (R90DA033463)   May 2014 – May 2016
- Attendance scholarships (see TRAINING)
  - Family Planning Conference   December 2 – 3, 2017
  - 2017 Annual Meeting   November 10 – 12, 2017
  - Transforming Mindsets II – Patient Safety Summer School   June 11 – 15, 2017
  - Summer Institute for Medical Students   June 5 – 9, 2017
  - Abortion Training Institute   February 24 – 26, 2017
  - The North Coast Conference on Precision Medicine   September 29, 2016

RESEARCH EXPERIENCE

Clinical Informatics, The MetroHealth System, Cleveland, OH
Researcher   May 2017 – Present

- Project: Determining the optimal duration of benzodiazepine treatment for alcohol withdrawal to avoid benzodiazepine-related delirium
- Project: The effects of smoking history variability in electronic health records (EHRs) on the ordering of lung cancer screening tests
  - Publication: see BIBLIOGRAPHY #1
  - Presentations: see BIBLIOGRAPHY #3, #4
  - Does the inaccuracy of smoking history documentation lead to underscreening of patients?
  - Are some specialities/types of providers more likely than others to inappropriately alter smoking exposure documentation?
  - Can a better metric than pack-years be incorporated into EHR to improve lung cancer screening rates?

Hedstrom Laboratory, Brandeis University, Waltham, MA

Undergraduate Researcher   September 2013 – May 2016

Computational Neuroscience Fellow   May 2014 – May 2016

- Project: Determining the significance of interactions among inosine 5'-monophosphate dehydrogenase (IMPDH), RNA polymerase, and ribsomes in *Escherichia coli*
- 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_{50} data of hundreds of inhibitors used with 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

Peer-Reviewed

1. Tarabichi, Y., **Kats, D.J.**, Kaelber, D.C., Thornton, J.D. The Impact of Fluctuations in Pack-Year Smoking History in the Electronic Health Record on Lung Cancer Screening Practices. *CHEST*. 2018, 153(2): 575 – 578.

Workshops

2. [National] **Kats, D.J.**, Mieso, B., Singh, M., Gullett, H., Koopman Gonzalez, S. Patient Navigation: Pre-Clinical Medical Students Experiencing Longitudinal Patient Relationships. Accelerating Change in Medical Education Consortium Student-Led Conference on Health Systems Science; Hershey, PA. 2018.

Oral Presentations

3. [Local] **Kats, D.J.**, Tarabichi, Y., Kaelber, D.C., Thornton, J.D. The Impact of Smoking History EHR Fluctuations on Lung Cancer Screening Practices. Lepow Day; Cleveland, OH. 2017.

Poster Presentations

4. [International] **Kats, D.J.**, Thornton, J.D., Kaelber, D.C., Tarabichi, Y. Structured Smoking Exposure Variability in the Electronic Health Record Hurts Lung Cancer Screening Practices. American Thoracic Society International Conference; San Diego, CA. 2018.

5. [Local] **Kats, D.J.**, Gollapalli, D., Dang, Y., Hedstrom, L. Moonlighting Interactions of IMPDH Affect *Escherichia coli* Growth. SciFest V; Waltham, MA. 2015. (Poster #2015.421)

6. [Local] **Kats, D.J.**, Gollapalli, D., Dang, Y., Hedstrom, L. Moonlighting Interactions of *Escherichia coli* IMPDH. SciFest IV; Waltham, MA. 2014. (Poster #2014.311)

Non-Peer-Reviewed

7. **Kats, D.J.** Inosine 5'-monophosphate dehydrogenase: A collection of mysterious binding sites and regulation [BS honors thesis]. Waltham, MA: Brandeis University. 2016.

PRE-CLINICAL ELECTIVES

Longitudinal Patient Navigator Elective   January 2017 – February 2018
- Workshop: see BIBLIOGRAPHY #2
- Helped a newly arrived family of refugees navigate through their healthcare by accompanying them to as many appointments as possible
  - Logged all patient interactions in the health record, facilitating a flow of information from specialists to the primary care physician
- Assigned to a family physician preceptor at an FQHC in Cleveland, OH

Introduction to Emergency Medicine, Critical Care, and Trauma   Spring 2018
- EMS ride-along (4 hours)
- LifeFlight fly-along (8 hours)
- ED shadowing (4 hours)
- Burn ICU Teaching Rounds, Multidisciplinary Rounds, Burn Survival Meeting

Cancer Care Elective   Fall 2017
- Three half-days of shadowing Head and Neck Surgical Oncology
- Attended medical oncology rounds

Cancer Survivorship Elective   Fall 2016
- 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   Fall 2016, 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

INSTITUTIONAL SERVICE

Student Committee on Admissions, Case Western Reserve University School of Medicine
Co-Chair   January 2017 – January 2018
- Coordinated admissions interviews, tours, and lunches
- Attended Admissions Committee Meetings as a non-voting participant

Peer Handoff, Case Western Reserve University School of Medicine
Volunteer   July 2017
- Led small and large group sessions during new student orientation

Diversity Planning Committee, Case Western Reserve University School of Medicine
Member   June – July 2017
- Helped plan diversity training for new student orientation
- Focused on making all aspects of training engaging for all students, regardless of background

COMMUNITY SERVICE

Sexual Education, Cuyahoga County Juvenile Detention Center
Volunteer   October 2017 – February 2018
- Taught a three-day sexual education curriculum to children in a juvenile detention center
- Topics covered: reproductive anatomy, hygiene, sexually transmitted infections, contraception, consent, and healthy relationships

Anatomy Camp, Case Western Reserve University School of Medicine
Volunteer   October – November 2017
- Taught Cleveland middle and high school students general principles of biology related to the healthcare field

Student Run Health Clinic, Case Western Reserve University School of Medicine
Volunteer   June 2017 – February 2018
- Junior Clinician: worked with a fourth year medical student to perform the initial history and physical on patients, followed by presenting to the attending
- Case Manager: worked with a social work student to assess patients' social needs prior to handing off to the Junior and Senior Clinicians
- Front Desk: registered patients for appointments

Doc Opera (Fundraiser), Case Western Reserve University School of Medicine
Dancer (1 performance)   August – December 2017
Dancer (3 performances)   August – December 2016
- Doc Opera is a fundraiser for the Student Run Health Clinic and consists of dances and skits entirely performed by medical students
- Danced in three performances during 2016: cha-cha, Bollywood fusion, and hip-hop
- Danced in one performance during 2017: fusion dance consisting of Bhangra, Bharatanatyam, and Kathak

Sexual Education, American Medical Women's Association
Volunteer   November 2016 – December 2017
- Taught a three-day sexual education curriculum to underserved Cleveland middle school students
- Topics covered: reproductive anatomy, sexually transmitted infections, contraception, and consent
- Helped incorporate education on consent into the curriculum

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

SKILLS

- Programming in Python, Java, MATLAB, and R
- Basic web development: HTML, CSS, and JavaScript (self-taught)
- Document typesetting: LaTeX (self-taught)

LANGUAGES

- Russian: fluent (non-medical)
- Spanish: intermediate conversational and medical
- American Sign Language: brief exposure, limited vocabulary

INTERESTS

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