

Allie Kreitman (she/her)

curriculum vitae

contact

Email: allie.kreitman@gmail.com

Website: allieskreitman.com

Linkedin: [linkedin.com/in/alliekreitman](https://www.linkedin.com/in/alliekreitman)

About Me

I am entering my first year as an MD/PhD candidate at the University of Washington. I aim to pursue translational research in evolutionary biology, cancer biology, and infectious diseases that bridges molecular biology, mathematical modeling, and medicine.

Education

Colorado College, 2021

Colorado Springs, CO

B.A

Major: Molecular Biology | Minor: Mathematical Biology

University of Chicago Laboratory Schools, 2017

Chicago, IL

High school diploma

Awards

NIH Postbac Poster Day Top 20% (2022)

Awarded to top 20% of poster presenters at National Institutes of Health Postbac Poster Day

Mary Alice Hamilton Award in Molecular Biology (2021)

Awarded to the top molecular biology major at Colorado College based on academic performance, research, and prospects for a successful career in biology

Barbara Whitten Prize for Women in the Natural Sciences (2021)

Awarded to a woman student in the natural sciences at Colorado College who achieves personal scientific excellence while helping others do the same

Intramural NIAID Research Opportunities Trainee (2021)

Awarded to 11 NIH Postbaccalaureates who show promise in the sciences and come from communities underrepresented in biomedical research

Goldwater Scholar (2020)

Awarded to 396 college students in the US studying science and engineering

Colorado College Magnussen Gilmore Award Recipient (2020)

Summer research funding for a molecular biology student at Colorado College selected by the department

Colorado College Dean's List (2018 - 2021)

Awarded to students who attain a grade point average for the academic year of 3.75 or higher

2016-17 Illinois State Scholar (2016 - 2017)

Awarded to high school seniors in Illinois for outstanding academic achievement

Daley Leadership in the Public Sphere Award (2016)

Awarded to an Illinois state history fair project

Publications

Brian Epling, Joseph M. Rocco, Kristin L. Boswell, Elizabeth Laidlaw, Frances Galindo, Anela Kellogg, Sanchita Das, Allison Roder, Elodie Ghedin, **Allie Kreitman**, Robin L. Dewar, Heather Kalish, Tauseef Rehman, Jeroen Highbarger, Adam Rupert, Gregory Kocher, Michael Holbrook, Andrea Lisco, Maura Manion, Richard Koup, Irini Sereti. Clinical course, immunologic response, and SARS-CoV-2 viability in patients with rebound of COVID-19 following nirmatrelvir/ritonavir. 2022, Clinical Infectious Disease. [Pubmed](#)

Kapil K. Saharia, Sabrina Ramelli, Sydney Stein, Allison E. Roder, **Allie Kreitman**, Stephanie Banakis, Joon-Yong Chung, Peter D. Burbelo, Manmeet Singh, Robert M. Reed, Vipul Patel, Joseph Rabin, Alexander S. Krupnick, Jeffrey I. Cohen, Emmie de Wit, Elodie Ghedin, Stephen M. Hewitt, Kevin M. Vannella, Daniel S. Chertow, Alison Grazioli. Successful lung transplantation using an allograft from a COVID-19 recovered donor. 2022, American Journal of Transplantation. [Full text link](#)

Matthew Stier, Christopher Chapman, **Allie Kreitman**, John Hart, Shu Yuan Xiao, Uzma Siddiqui, and Irving Waxman. 2018. Dissection-enabled scaffold assisted resection (DeSCAR): a novel technique for resection of residual or non-lifting GI neoplasia of the colon. Gastrointestinal Endoscopy, 87: 843-851. [PubMed](#)

Posters & Presentations

Surprising SARS-CoV-2 transmission dynamics in the Caribbean islands during the early COVID-19 Pandemic
NIAID INRO Annual Symposium, 2023

Genomic Epidemiology of SARS-CoV-2 Spread in Haiti During the Early COVID-19 Pandemic
NIAID/LPD weekly seminar, 2023

Using SARS-CoV-2 Surveillance Sequencing to Discover SARS-CoV-2 Lineage Emergence
NIH-FDA COVID-19 Annual Workshop, 2022

Predicting COVID-19 Disease Severity using SARS-CoV-2 Single Nucleotide Polymorphisms
NIH Postbac Poster Day, 2022

Epstein Barr Virus Latent Membrane Protein 1 Alters Expression of MCL1 and TSC1 in B cell Lymphomas
Colorado College Senior Thesis Day, 2021

The Hallmarks of Cancer in Epstein Barr Virus Related B Cell Lymphomas
Colorado College Summer Research Symposium, 2020

Professional Experiences

Research

Characterizing SARS-CoV-2 Epidemic in Dominican Republic and Haiti
Ghedin Lab, National Institute of Allergy and Infectious Diseases, 2021-2022

The goal of this work is to use tools of molecular epidemiology to understand the presence, transmission, and spread of SARS-CoV-2 in Haiti and the Dominican Republic in late 2020 and early 2021

Predicting COVID-19 Disease Severity using SARS-CoV-2 Single Nucleotide Variants
Ghedin Lab, National Institute of Allergy and Infectious Diseases, 2021-2022

The goal of this work is to use whole genome sequencing data to develop a multivariate model to predict COVID-19 disease severity based on viral single nucleotide variants.

Literature Review on How EBV Causes B Cell Lymphomas
Hatton Lab, Colorado College, 2020

The goal of this work was to produce a literature review of the mechanisms by which EBV can promote the hallmarks of cancer, as defined by Hanahan and Weinberg, in B cell lymphomas

Research Mechanisms of Epstein Barr Related B cell Lymphoma

Hatton Lab, Colorado College, 2020-2021

The goal of this work was to determine whether the primary oncogene of Epstein Barr virus regulates the expression of a series of proteins related to cell cycle regulation and tumor suppression

The Bayesian Inference of HIV Selection Rate Under Different Drug Environments

Dwyer Lab, University of Chicago, 2018-2022

The goal of this work was to estimate the selection pressure on HIV across changing drug treatment environments

Stochastic Modeling of HIV Mutation Rates

Dwyer Lab, University of Chicago, 2018

The goal of this work was to analyze the effects of randomness with mutation rate and immune system strength in small populations of HIV particles

Rearing Tussock Moths for Field Experiments

Dwyer Lab, University of Chicago, 2018

The goal of this work was to prepare for field experiments studying the spread of baculovirus on tree branches

Medical

Patient Support Services Volunteer (120 hours)

Inova Fairfax Hospital, Fairfax, VA, 2022 - 2023

Discharge and escort patients around the hospital, make deliveries to inpatients. I have work with a particular focus on post-partum

HIV and COVID-19 Test Volunteer (80 Hours)

One Tent Health, Washington, D.C., 2021-2022

Help people register for free COVID-19 testing and offer free HIV testing in DC

Shadowed Neurosciences and Interventional Radiology, Learning Link Career Observation Program (50+ hours)

Memorial Hospital, Colorado Springs, CO, 2019

Shadowed nurses in the inpatient neuroscience unit and techs during surgery in interventional radiology

Shadowed GI surgeon, Dr. Irving Waxman (100+ hours)

University of Chicago, Chicago, IL, 2018

Observed therapeutic endoscopic surgery and organized patient background information for clinical studies

AHA Certified CPR Instructor

Colorado College, Colorado Springs, CO, 2018-2021

Teach AHA Heartsaver First Aid/ CPR/ AED classes to students, staff, and faculty

NOLS Wilderness First Responder

Trained to provide first aid in the backcountry

Coursework

Natural Science

- Genetics
- Immunology
- Stem Cell Biology
- Genetics of Identity
- Introductory Cellular Biology Lecture
- Lab in Cellular Biology & Genetics
- Biology of Viruses & Epidemics
- General Chemistry
- Organic Chemistry

- Biochemistry
- Human Anatomy
- Head and Neck Anatomy
- Human Physiology
- Physical Geology

Math & Computer Science

- Infectious Diseases, Immunology, and Within-Host Models
- Mathematical Modeling of Epidemics
- Mathematical Models in of Biological Systems
- Calculus (Differential, Integral, & Multivariable)
- Linear Algebra
- Ordinary Differential Equations
- Partial Differential Equations
- Probability & Statistics
- Introduction to R
- Introduction to Python

Humanities

- Introductory Spanish
- Introduction to Feminist and Gender Studies
- Women and Goddesses in Hinduism
- Introduction to Poetry
- Introduction to Psychology

Leadership & Extracurriculars

Mentoring

Goldwater Ambassadors Mentor

Virtual, 2023

Mentor college students who hope to pursue STEM careers through the Goldwater Scholars Network

Quantitative Reasoning Center Tutor

Colorado College, Colorado Springs, CO, 2020-2021

Tutored Colorado College Undergraduates in Molecular Biology, Chemistry, Math, and Anatomy. Run test review sessions for introductory classes, answer questions, and help with lab reports

CREATE Mentor

Colorado College, Colorado Springs, CO, 2018-2020

Mentored 8th grade girls from Mann Middle School (Colorado Springs, CO). Facilitated discussions about topics including body image, family, and online presence

First-Year Orientation leader

Colorado College, Colorado Springs, CO, 2018-2020

Led four-day camping and community service trips for incoming Colorado College students

First Year Mentor for "Viruses: The Biology and Mathematical Modeling of Epidemics"

Colorado College, Colorado Springs, CO, 2018-2019

Hosted events, helped with class registration, ran review sessions for this first-year only class in mathematics and molecular biology

Additional Service Events

Colorado College Students in Medicine Panelist

May 2023, 2 hours

Panel member for Colorado College pre-health club's applying to health professions programs

Goldwater Scholars MD/PhD Application Panelist

May 2023, 3 hours

Panel member to MD/PhD Application webinar for Goldwater Scholars applying to MD/PhD programs

NIAID INRO Mentor for MD/PhD Applicants

Jan - April 2023, 10 hours

Referred by NIAID postbac supervisor to serve as mentor in applying to MD/PhD programs for other NIAID trainees

Rock Climbing**Head Route Setter**

Ritt Kellogg Climbing Gym at Colorado College, Colorado Springs, CO, 2018-2021

Set climbs, ran staff development clinics, organized events and competitions, lead new staff hiring and training, and built schedules

Ranked within Top 10 Female Collegiate Climbers

USA Climbing's Rocky Mountain Region, 2017-2019

Co-Captain of the First Ascent Climbing Team

Chicago, IL, 2016-2017

Music**Member of Colorado College Chamber Orchestra & Bluegrass Ensemble**

Colorado College, Colorado Springs, CO, 2017-2021

Top Tier Solo Performance in Cello

Illinois High School Association, 2015-2017

Awarded to Illinois high school students on solo music performance

National Phi Mu Alpha Sinfonia Award

French Woods Festival, 2015

National award recognizing excellence in music

Hobbies & Interests

- Training my dog
- Rock Climbing
- Hiking
- Backpacking
- Photography
- Travel
- Cello