DANIELA FERA

Assistant Professor
Department of Chemistry and Biochemistry
Swarthmore College, 500 College Ave
Swarthmore, PA 19081
dfera1@swarthmore.edu
610-690-3308

Education and Training

11/12 –07/17 **Boston Children's Hospital / Harvard Medical School, Boston, MA,** Postdoctoral Research Fellow
Investigated the interplay between in the immune response and virus evolution in donors or animals infected with or vaccinated against HIV.

09/06 – 08/12 **University of Pennsylvania**, Graduate School of Arts and Science, Philadelphia, PA
Ph.D. in Biological Chemistry, 06/12
Dissertation Title: "Identification and Characterization of Small Molecule Antagonists of Human Papillomavirus Oncoproteins"

09/01– 05/05 **New York University**, College of Arts and Science, New York, NY
B.A. in Chemistry, with Honors; B.A. in Mathematics, 05/05

Faculty Academic Appointments:

07/18 - Present **Adjunct Assistant Professor of Biochemistry,** Department of Biochemistry and Molecular Biophysics, University of Pennsylvania, Philadelphia, PA

08/17 - Present **Assistant Professor of Biochemistry,** Department of Chemistry and Biochemistry, Swarthmore College, Swarthmore, PA

09/16 – 12/16, 09/15 – 12/15 **Adjunct Professor of Chemistry,** School of Arts and Sciences, Massachusetts College of Pharmacy and Health Sciences, Boston, MA

09/14 – 05/15 **Adjunct Faculty,** Department of Chemistry and Physics, Emmanuel College, Boston, MA

09/14 – 12/14 **Adjunct Faculty,** Department of the Sciences, Wentworth Institute of Technology, Boston, MA

Research Experience:

11/12 –07/17 **Postdoctoral Research Fellow**, Department of Molecular Medicine, Boston Children's Hospital / Harvard Medical School, Laboratory of Dr. Stephen C. Harrison, Ph.D.

- Investigated the interplay between broadly neutralizing antibody (bnAb) development and virus evolution in donors infected with HIV using X-ray crystallography, electron microscopy, and biochemical methods, in conjunction with data from collaborators.
- Probed the immune response to immunization in non-human primates and in human clinical trials using similar approaches as above.
- Contributed an understanding of developmental pathways and envelope-antibody interactions for two HIV envelope epitopes (the CD4 binding site and V3-loop base glycans) to guide immunogen design.

05/07 – 10/12 **Graduate Research Assistant**, Department of Chemistry, The Wistar Institute, University of Pennsylvania, Laboratory of Dr. Ronen Marmorstein

- Analyzed interactions between host proteins, such as the retinoblastoma protein pRb and the transcription factor p300, and viral oncoproteins using biochemistry and other biophysical techniques.
- Designed and performed high throughput screens, *in vitro* assays, cell-based assays, and collaborative *in vivo* studies to identify and characterize small molecule inhibitors against the human papillomavirus (HPV) E6 and E7 oncoproteins.
- Demonstrated that inhibitors can disrupt critical host-viral protein complexes, prevent degradation of tumor suppressor, induce apoptosis in HPV-positive cells, and reduce HPV-induced tumors in mice.

06/02 – 05/05 **Undergraduate Research Assistant,** Department of Chemistry, College of Arts and Science, New York University, Laboratory of Dr. Tamar Schlick

- Wrote computer codes and used bioinformatics to analyze RNA sequences and secondary structures from a variety of genomes to try to correlate structure to function.
- Aided in the development of an RNA secondary structure database to catalogue different RNA secondary structures found in nature.
- Utilized Matlab and methods of graph theory to mathematically quantify and organize RNA secondary structures for placement in the RNA database.

Awards and Honors:

07/18	Scientific Teaching Fellow, 2018 Summer Institute on Scientific Teaching, led by Yale Center for Teaching & Learning
08/17	Kiehl's LifeRide for amfAR Grant Recipient
02/17	Travel Award, Boston Children's Hospital Postdoctoral Association
09/15	Postdoctoral Award, CHAVI-ID Annual Retreat
09/15	Poster Prize, CHAVI-ID Annual Retreat
05/12	Second Place Poster Prize, Wistar Institute Cancer Retreat
04/07	Penn Prize for Excellence in Teaching by Graduate Students
04/07	Chemistry Department Teaching Award
05/05	Merck Award
09/02 – 05/05	College of Arts and Science Presidential Scholar

Publications (Swarthmore College undergraduate researchers underlined)**:**

1. Bajic, G., Maron, M., Caradonna, T., Tian, M., Mermelstein, A., **Fera, D.**, Kelsoe, G., Kuraoka, M, Schmidt, A. (2020) Structure-guided molecular grafting of a complex broadly neutralizing viral epitope. *ACS Infect Dis.* 6,5:1182-1191. doi: 10.1021/acsinfecdis.0c00008.

2. Zhou, J.O., Ton, T., Morriss, J.W., Nguyen, D., **Fera, D.**, (2018) Structural Insights from HIV-Antibody Co-Evolution and Related Immunization Studies. *AIDS Research and Human Retroviruses*. 34(9):760-768. doi: 10.1089/AID.2018.0097.

3. **Fera, D.**, Lee, M.S., Wiehe, K., Meyerhoff, R.R., Piai, A., Bonsignori, M., Aussedat, B., Walkowicz, W.E., Ton, T., Zhou, J.O., Danishefsky, S., Haynes, B.F., and Harrison, S.C. (2018) HIV Envelope V3 Region Mimic Embodies Key Features of a Broadly Neutralizing Antibody Lineage Epitope. *Nat Commun.* 16;9(1):1111

4. Williams*, W.B., Zhang*, J., Jiang*, C., Nicely*, N.I., **Fera*, D.**, Luo, K., Moody, M.A., Liao, H.X., Alam, S.M., Kepler, T.B., Ramesh, A., Wiehe, K., Holland, J.A., Bradley, T., Vandergrift, N., Saunders, K.O., Parks, R., Foulger, A., Xia, S.M., Bonsignori, M., Montefiori, D.C., Louder, M., Eaton, A., Santra, S., Scearce, R., Sutherland, L., Newman, A., Bouton-Verville, H., Bowman, C., Bomze, H., Gao, F., Marshall, D.J., Whitesides, J.F., Nie, X., Kelsoe, G., Reed, S.G., Fox, C.B., Clary, K., Koutsoukos, M., Franco, D., Mascola, J.R., Harrison, S.C., Haynes, B.F., Verkoczy, L. (2017) Initiation of HIV neutralizing B cell lineages with sequential envelope immunizations. *Nat Commun.* 23;8(1):1732 (*equal contribution)

5. Horwitz*, J.A., Bar-On*, Y., Lu*, C.L., **Fera, D.**, Lockhart, A.A.K., Lorenzi, J., Nogueira, L., Golijanin, J., Scheid, J.F., Seaman, M.S., Gazumyan, A., Zolla-Pazner, S. and Nussenzweig, M.C. (2017) Non-Neutralizing Antibodies Alter the Course of HIV-1 Infection *in vivo. Cell.* 10;170(4):637 (*equal contribution)

6. Bonsignori*, M., Kreider*, E.F., **Fera*, D.**, Meyerhoff*, R.R., Bradley*, T., Wiehe, K., Alam, S. A., Aussedat, B., Walkowicz, W.E., Hwang, K.K., Saunders, K.O., Zhang, R., Gladden, M.A., Monroe, A., Kumar, A., Xia, S.M., Cooper, M., Louder, M.K., McKee, K., Bailer, R.T., Pier, B.W., Jette, C.A., Kelsoe, G., Williams, W.B., Morris, L., Kappes, J., Wagh, K., Kamanga, G., Cohen, M.S., Hraber, P.T., Montefiori, D.C., Trama, A., Liao, H.X., Kepler, T.B., Moody, M.A., Gao, F., Danishefsky, S.J., Mascola, J.R., Shaw, G.M., Hahn, B.H., Harrison, S.C., Korber, B.T., Haynes, B.F. (2017) Staged induction of HIV-1 glycan-dependent broadly neutralizing antibodies. *Science Translational Medicine.* 9(381). (*equal contribution)

7. Easterhoff, R., Moody, M. A., **Fera, D.,** Cheng, H., Ackerman, M., Wiehe, K., Saunders, K.O., Vandergrift, N., Parks, R., Kim, J., Michael, N.L., O'Connell, R.J., Excler, J.L., Robb, M.L., Vasan, S., Rerks-Ngarm, S., Kaewkungwal, J., Pitisuttithum, P., Nitayaphan, S., Sinangil, F., Tartaglia, J., Phogat, S., Kepler, T.B., Alam, S.M., Liao, H.X., Ferrari, G., Seaman, M.S., Montefiori, D.C., Tomaras, G.D., Harrison, S.C. and Haynes, B.F. (2017) HIV envelope CD4 binding site antibodies with long variable heavy third complementarity determining region boosted with a HIV vaccine. *PLoS Pathogens.* 13(2).

8. Bradley*, T., **Fera*, D.**, Bhiman, J., Eslamizar, L., Lu, X., Anasti, K., Zhang, R., Sutherland, L.L., Scearce, R.M., Stolarchuk, C., Lloyd, K.E., Parks, R., Martelli, A., Foulger, A., Abdool-Karim, S.S., Barnett, S., Kepler, T.B., Alam, S.M., Montefiori, D.C., Moody, M.A., Liao, H.X., Morris, L.,Santra, S., Harrison, S.C., and Haynes, B.F. (2016) Structural Constraints of Vaccine-Induced Tier-2 Autologous HIV Neutralizing Antibodies Targeting the Receptor Binding Site. *Cell Reports,* 14; 1-12. (*equal contribution)

9. **Fera, D.**, Schmidt, A.G, Haynes, B.F., Gao, F., Liao, H.X., Kepler, T.B., and Harrison, S.C. (2014) Affinity Maturation in an HIV Broadly Neutralizing B-cell Lineage Through Reorientation of Variable Domains. *PNAS,* 111; 10275-10280

10. Malecka*, K.A., **Fera*, D**., Schultz, D.C., Hodawadekar, S., Reichman, M., Donover, P.S., Murphy, M., and Marmorstein, R. (2014) Identification and characterization of small molecule human papillomavirus E6 inhibitors. *ACS Chemical Biology,* 9; 1603-12. (*equal contribution)

11. **Fera, D.** and Marmorstein R. (2012) Different Regions of the HPV E7 and Ad E1A Viral Oncoproteins Bind Competitively but Through Distinct Mechanisms to the CH1 Transactivation Domain of p300. *Biochemistry*, 51; 9524-9534

12. **Fera, D.**, Schultz, D.C., Hodawadekar, S., Reichman, M., Donover, P.S., Melvin, J., Huryn, D.M., and Marmorstein, R. (2012) Identification and Characterization of Small Molecule Antagonists of pRb Inactivation by Viral Oncoproteins. *Chemistry and Biology*, 19; 518-528

13. Yi, C., Troutman, S., **Fera, D.**, Stemmer-Rachamimov, A., Avila, J. L., Christian, N., Luna Persson, N., Shimono, A., Speicher, D. W., Marmorstein, R., Holmgren, L., and Kissil, J.(2011) Tight Junction- Associated Merlin-Angiomotin Complex Mediates Merlin's Regulation of Mitogenic Signaling and Tumor Suppressive Functions. *Cancer Cell*, 19; 527-540

14. Elmatad, Y., Zitolo, M., **Fera, D.**, and Jerschow, A. (2007) Examining Gas Kinetics in MATLAB. *Chem. Educator*. 12; 89-93

15. **Fera**, **D.**, Kim, N., Shiffeldrim, N., Zorn, J, Laserson, U., Gan, H.H., and Schlick, T. (2004) RAG: RNA-As-Graphs web resource. *BMC Bioinformatics*. 5:88

16. Gan, H.H, **Fera, D.**, Zorn, J, Shiffeldrim, N., Laserson, U., Kim, N., and Schlick, T. (2004) RAG: RNA-As-Graphs Database - Concepts, Analysis, and Features. *Bioinformatics*, 20; 1285-1291

Patents:

1. WO 2013070586 A1, Issued: 05-16-2013; "Small molecule modulators of pRb inactivation"

Manuscripts
(undergraduate co-authors underlined)

1. Zhou, J.O., Zaidi, H., Ton, T., Fera, D. The Effects of Framework Mutations at the Variable Domain Interface on Antibody Affinity Maturation in an HIV-1 Broadly Neutralizing Antibody Lineage. *(submitted)*

2. Williams, W.B, Meyerhoff, R.R., Edwards R.J., Li, H. , Nicely, N., Henderson, R., Zhou, Y., Janowska, K., Mansouri, K., Manne K. , Stalls, V., Hsu, A., Borgnia, M., Stewart-Jones, G., Lee, M., Bronkema, N., Perfect , J., Moody, M.A., Wiehe, K., Bradley, T., Kepler, T.B., Alam, S.M., Parks, R.J., Foulger, A., Bonsignori, M., Montefiori, D.C., Seaman, M., Santra, S., Francica, J., Lynn, G., Aussedet, B., Walkowicz, W.E., Kelsoe, G., Saunders, K.O, **Fera, D.**, Kwong P.D., Seder, R., Bartesaghi, A., Shaw, G.M., Acharya, P., Haynes, B.F., Fab-dimerized glycan-reactive antibodies neutralize HIV and are prevalent in humans and rhesus macaques. *(in preparation)*

3. Lin, Y, Nguyen, D., Zhou, J.O., Kibby, E., Sia, T., Tillis, T., Vapuryan, N., Xu, M.R., Potluri, R., Shin, Y.J., Erler, E., Bronkema, N., Boehlmer, D., Chung, C., Grasso, M., Marmorstein, R., **Fera, D.** Analysis of the effects of protein-protein interactions on signaling through a team-based undergraduate biochemistry course. *(in preparation)*

Poster Presentations at National and International Meetings
(undergraduate co-authors underlined; presenters are marked with *)

1. Morriss, J.W.*, Zhou, J.O., Fera, D. (2019). Structural Analysis of an Early Intermediate of the DH270 Broadly Neutralizing B-cell Lineage. (Poster Presentation). *HIV Vaccines (X7) Keystone Symposia*, Whistler, British Columbia Canada

2. Morriss, J.W.*, Fera, D. (2018). An analysis of HIV antibody-virus co-evolution to guide vaccine design. *Swarthmore Chapter Sigma Xi Poster Session,* Swarthmore, PA, USA

3. Morse, E. *, Fera, D. (2018) Identification of the unfavorable characteristics of 1A102R, 1AZCET, and 1AH92U antibodies against HIV. *Swarthmore Chapter Sigma Xi Poster Session,* Swarthmore, PA, USA

4. Ton, T.*, Zhou, J.O., Fera, D. (2018). Purification of a fragment of an Anti HIV-1 progenitor antibody mutant, and mutation of V1/V2 loops of HIV-1 Envelopes. *Swarthmore Chapter Sigma Xi Poster Session,* Swarthmore, PA, USA

5. Zhou, J.O. *, Fera, D. (2018). Characterizing a CH103 Quadruple Mutant. *Swarthmore Chapter Sigma Xi Poster Session,* Swarthmore, PA, USA

6. Zhou, J.O. *, Ton, T.*, Fera, D. (2018). Probing Affinity Maturation in the HIV-Induced CH103 Broadly Neutralizing Antibody Clonal Lineage., FCBIS Symposium, University of Pennsylvania, Philadelphia, PA, USA

Invited Oral Presentations:

07/20	Analysis of the effects of protein-protein interactions on signaling through a team-based undergraduate biochemistry course. 2020 Biennial Conference on Chemical Education. Abstract accepted March 31, 2020. Because of the global COVID-19 pandemic, the 2020 Biennial Conference on Chemical Education was terminated on April 2, 2020, by the Executive Committee of the Division of Chemical Education, American Chemical Society; and, therefore, this presentation could not be given as intended.
10/17	Structural Mimic of the HIV Envelope V3 Region Reveals Key Features of the DH270 Broadly Neutralizing Antibody Lineage Epitope and Stages of Affinity Maturation. Duke Center for HIV/AIDS Vaccine and Immunology and Immunogen Discovery, Duke University, Durham, NC
10/16	A Structural Analysis of the Interaction with Env of the DH270 Broadly Neutralizing Glycan-Dependent B-Cell Lineage from Donor CH848, and its Cooperating Lineages DH475 and DH272 (Selected oral abstract) Duke Center for HIV/AIDS Vaccine and Immunology and Immunogen Discovery, Duke University, Durham, NC
10/16	Structural Analysis by Negative Stain EM of Env-Fab Complexes from NHP79 and RV305.Duke Center for HIV/AIDS Vaccine and Immunology and Immunogen Discovery, Duke University, Durham, NC
03/16	Structural Analysis of an HIV-1 Broadly Neutralizing B-Cell Lineage Targeting the Env N332 Glycan. HIV Vaccines (X8) Keystone Symposia, Olympic Valley, CA
03/16	Structural Analysis of an HIV-1 Broadly Neutralizing B-Cell Lineage Targeting the Env N332 Glycan. Antibody Viral Co-evolution Workshop, Los Alamos, NM (New Mexico Consortium)
09/15	Crystal Structure Reveals Why Antibodies from Rhesus Macaque Immunizations Can Neutralize Tier-2 Autologous Envs. Duke Center for HIV/AIDS Vaccine and Immunology and Immunogen Discovery, Duke University, Durham, NC
09/14	Structural Investigations of the HIV “Arms Race” in Glycan-Dependent Antibody Lineages. Duke Center for HIV/AIDS Vaccine and Immunology and Immunogen Discovery, Duke University, Durham, NC
04/14	Structural Analysis of Antibody Affinity Maturation in the CH103 Lineage. Duke Center for HIV/AIDS Vaccine and Immunology and Immunogen Discovery, Duke University, Durham, NC

09/13 Investigating the Mechanisms of the HIV "Arms Race" in the CH103 Lineage. Duke Center for HIV/AIDS Vaccine and Immunology and Immunogen Discovery, Duke University, Durham, NC

Grants:

04/20 – 03/23 Analysis of the initiation of an HIV Broadly Neutralizing Antibody Lineage in a Single Host.
NIH NIAID 1R15AI150484 - 01A1
PI ($250,000 – total direct costs for 3-year period)
The major goal is to analyze, structurally, the initiation of a virus-antibody "arms race" in a donor who developed antibodies of significant breadth, which would be informative for immunogen design.

01/20 – 12/20 Developing and integrating course-based undergraduate research experiences (CUREs) across the Tri-College communities.
Mellon Tri-College Faculty Forum Brainstorming Grant.
Co-PI with Dr. Louise Charkoudian and Dr. Yan Kung. ($600)
The major goal is to integrate the development and execution of course-based undergraduate research experiences in various STEM disciplines.

2/18 – 06/19 Expanding the impact of biochemistry course-based undergraduate research experiences (CUREs) by integrating efforts across the Tri-College communities.
Mellon Tri-College Faculty Forum Brainstorming Grant.
Co-PI with Dr. Louise Charkoudian and Dr. Yan Kung. ($300)
The major goal was to identify ways to integrate the development and execution of biochemistry course-based undergraduate research experiences.

08/17 – 07/18 Structural analyses of antibody-virus complexes to guide immunogen design.
amFAR Mathilde Krim Fellowship in Basic Biomedical Research, Phase II
PI ($69,565.22 – total direct costs for 1-year period)
The major goal was to biochemically and structurally investigate an earlier member of a broadly neutralizing N332-glycan dependent antibody lineage in complex with the HIV envelope to determine features of the HIV envelope that triggered this lineage, and contribute to vaccine design strategies.

11/16 – 07/17 Structural analyses of antibody-virus co-evolution to guide immunogen design.
amFAR Mathilde Krim Fellowship in Basic Biomedical Research
PI ($136,000 – total direct costs for 2-year period)
The major goal was to biochemically and structurally investigate, using cryo-electron microscopy (cryo-EM), the significance of long antibody CDR loops for penetrating the HIV envelope glycan shield and the structure of difficult to neutralize envelope trimers to inform immunogen design.

12/14 – 10/16 Interplay between antibody affinity maturation and HIV evolution in a single host
NIH NIAID 1F32AI116355-01
PI ($110,236 – total direct costs for 2-year period)
The major goal was to determine pathways of antibody affinity maturation that have led to specific broadly neutralizing antibodies against HIV, and track the co-evolution in an infected individual of virus and antibody response.

09/09 – 08/10 Structure-Based Design of HPV-E7 Inhibitors
BMB Structural Biology Training Grant / University of Pennsylvania
Graduate student/Trainee
The major goal was to co-crystallize human papillomavirus E7 inhibitors with their protein target and use the crystal structure to improve the potency and specificity of the inhibitors.

09/07 – 08/09 Structure-Based Design of HPV-E7 Inhibitors
NIH Chemistry-Biology Interface Pre-doctoral Training Grant
NIH NIGMS GM071339
Graduate student/Trainee
The major goal was to identify and characterize small molecule inhibitors against the human papillomavirus E7 oncoprotein, and investigate the interaction between E7 and the p300 transcriptional co-activator.

05/07 – 05/08 Center for Teaching and Learning Graduate Fellowship
Center for Teaching and Learning / University of Pennsylvania
Graduate Fellow – organizer of workshops ($6000)
The major goal was to organize and lead teaching workshops, observe graduate students teaching and offer feedback, and meet regularly as a fellows group to discuss teaching practices and ideas.

06/03 – 08/03 Secondary RNA Structure Motifs
Department of Chemistry Research Fellowship / New York University
Undergraduate student PI ($3000)
The major goal was to write computer codes and use bioinformatics to analyze RNA sequences and secondary structures across genomes to try to correlate structure to function.

01/03 –05/03 RAG: RNA-As-Graphs Database
Dean's Undergraduate Research Fund / New York University
Undergraduate student PI ($500)
The major goal was to aid in the development of an RNA secondary structure database to catalogue structures found in nature.

Teaching Activities (*at* Swarthmore College):

Courses:

Biological Chemistry I Laboratory (CHEM038)
Spring semesters: 2018, 2019, 2020
Biological Chemistry II (CHEM048)
Fall semesters: 2017, 2018, 2019
Advanced Experimental Biological Chemistry (CHEM058)
Fall semesters: 2018, 2019
Special Topics in Biochemistry and its Applications (CHEM118)
Spring semesters: 2018, 2019, 2020

Research:

Research Project (CHEM094)
Fall semester, 2018, Spring semesters: 2018, 2019
Honors – Thesis Research (CHEM180)
Fall semesters: 2018, 2019 Spring semesters: 2019, 2020

Teaching Activities (*before* Swarthmore College**):**

09/16 – 12/16, 09/15 – 12/15 **Adjunct Professor of Chemistry,** School of Arts and Sciences, Massachusetts College of Pharmacy and Health Sciences
Principles of Chemistry Laboratory I

09/14 – 05/15 **Adjunct Faculty,** Department of Chemistry and Physics, Emmanuel College
Principles of Chemistry I Lecture and Laboratory

09/14 – 12/14 **Adjunct Faculty,** Department of the Sciences, Wentworth Institute of Technology
Engineering Chemistry I Lecture and Laboratory

05/07 – 05/08 **CTL Graduate Fellow,** Center for Teaching and Learning, University of Pennsylvania
Teaching Workshops – organized and held teaching workshops for graduate students and postdoctoral fellows

09/06 – 12/07 **General Chemistry Teaching Assistant,** Chemistry Department, University of Pennsylvania
Principles of Chemistry I/II Lecture Demos and Recitations

11/05 – 05/06 **Math Teacher**, College Now Program, York College/Far Rockaway HS
SAT preparatory course

09/05 – 06/06 **Math Teacher of Algebra and Trigonometry,** Math Department, Frederick Douglass Academy VI High School
Algebra and Trigonometry

07/06 – 08/06, 09/03 – 05/05 **General Chemistry Recitation Teaching Assistant,** Chemistry Department, New York University
Principles of Chemistry I/II Recitations

09/02 – 12/04 **General Chemistry Clinic Instructor,** Chemistry Department, New York University
Principles of Chemistry I/II Clinics

Supervision of Student Research (*at* Swarthmore College**):**

Year	**Student**	**Last Career Path Known**
2020	Emma Parker-Miller ‘21	Current Student
2020	Paul Seth ‘21	Current Student
2020	Erik-Stephane Stancofski ‘21	Current Student
2019	Naomi Bronkema, ’20 (honors)	Current Student
2019	Sarah Leonard, ‘21	Current Student
2019	Adam Mermelstein, ‘21	Current Student
2019	Hussain Zaidi, ‘22	Current Student
2019	Pearl Zhang, ‘22	Current Student
2018 - 2019	Emilie Morse, ‘20	Current Student
2018 - 2019	Julia Morriss, ’19 (honors)	Research Assistant, Broad Institute
2018 - 2019	Diep Nguyen, ‘19	Research Assistant, University of Pittsburgh
2017 - 2019	Therese Ton, ‘19	Research Assistant, Broad Institute
2017 - 2019	Jeffrey Zhou, ’19 (honors)	Research Assistant, University of Pennsylvania

Supervision of Research (*before* Swarthmore College**):**

Year	Student	Last Career Path Known
2016 – 2017	Matthew Lee (technician)	Medical student, Carle Illinois College of Medicine
2015	Claudia Jette (technician)	Ph.D. student, California Institute of Technology
2014 – 2015	Brendan Pier (technician)	Medical student, University of Connecticut Medical School
2014 – 2015	Claudia Jette, '15	Ph.D. student, California Institute of Technology
2011	Andrew Marmorstein	Computer Software Developer, OverDrive Inc.
2010	Stephanie Barros	Scientist, Janssen
2009 – 2010	Catherine Tang	Vice President, PJT Partners
2007 – 2008	Sarah Johnson	Licensing Manager, Drexel Ventures, Drexel University

College and Departmental Service (***at* Swarthmore College):**

09/19 – Present	Institutional Biosafety Committee
03/19 – Present	Richard Rubin Scholar Mentor
09/18 – Present	Department Academic Assessment Liaison
09/18 – 05/19	Fellowships and Prizes Committee

Academic Service (*before* Swarthmore College):

06/16 – 07/17	Boston Children's Hospital Postdoctoral Association, Mentoring Committee Chair
06/15 – 07/17	Boston Children's Hospital Postdoctoral Association, Mentoring Committee
03/15 – 07/17	HMS Biological Chemistry and Molecular Pharmacology Training Committee
11/09, 05/11	Organizing Committee, Chemical Biophysics Mini-Symposium
07/09, 07/10	Organizing Committee, Chemistry-Biology Interface Scientific Retreat
09/08 – 05/09	Graduate & Professional Student Assembly Student Life Policy Council
09/08 – 05/09	Graduate & Professional Student Assembly Recreation Advisory Board
03/08 – 04/08	Selection Committee for Penn Prize for Excellence in Teaching by Graduate Students

Service to the Scientific/Academic Community outside of Swarthmore

04/19	Panel Speaker, UPenn Career Services Academic Job Search Series for Ph.D. students and postdoctoral fellows
03/19	Session Chair, HIV Vaccines (X7) Keystone Symposia, Whistler, British Columbia Canada
09/18 – present	Scientific Advisory Committee member, amfAR, The Foundation for AIDS Research
10/17 – present	Ad Hoc Reviewer for Scientific Journals (Nature Communications, EMBO Journal)
03/16	Moderator, Antibody Viral Co-evolution Workshop, Los Alamos, NM (New Mexico Consortium)

Professional Development

06/19	Course Development Workshop for Flexible Learning Spaces, Swarthmore College
07/18	The Scientific Institute, Yale's Center for Teaching and Learning
08/17	The Cottrell Scholars Collaborative New Faculty Workshop

Memberships:

2018	Sigma Xi
2012	American Chemical Society
2005	Phi Lambda Upsilon