

JOHN J. DENNEHY

Associate Professor
Department of Biology
Queens College of the City University of New York
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ACADEMIC APPOINTMENTS

QUEENS COLLEGE CUNY, September 2013 – Present	Associate Professor
QUEENS COLLEGE CUNY, September 2007 – September 2013	Assistant Professor

EDUCATION

CLARK UNIVERSITY, Worcester, MA (Supervised by Dr. Todd Livdahl)	Ph.D. Biology (2003)
UNIVERSITY OF IDAHO, Moscow, ID (Supervised by Dr. John Byers)	M.S. Zoology (1997)
MERRIMACK COLLEGE, N. Andover, MA	B.A. Biology (1995)

POSTDOCTORAL TRAINING

2006-2007	Postdoctoral Associate: University of Albany (Supervisor: Ing-Nang Wang)
2003-2006	NSF Postdoctoral Fellow: Yale University (Supervisor: Paul Turner)

HONORS AND AWARDS

2012	National Science Foundation Faculty Early Career Award
2012	Dennehy & Wang 2011 cited as Highly Accessed in <i>BMC Microbiology</i>
2006	Dennehy, Friedenber <i>et al.</i> 2006 cited by Faculty of 1000
2006	Dennehy, Yang <i>et al.</i> 2006 cited by Faculty of 1000

GRANTS AND FUNDING

2017	National Institutes of Health NIGMS R01— Consequences and Control of Randomness in the Timing of Intracellular Events (Co-PI, \$230,004).
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CUNY Summer Advanced Grantwriting Award—*Topologies of Adaptive Landscapes in Influenza Virus Emergence* (\$5,000).

CUNY Interdisciplinary Research Grant Program—*Impact of Urbanization on Soil Microbiomes and Viromes* (\$40,000).

CUNY Advanced Science Center Seed Program—*Does a Host-Acquired Factor Impact Fitness on Subsequent Hosts in an RNA Virus?* (\$10,000).

- Queens College Research Enhancement Award—*Impact Of Urbanization on Soil Microbial Communities* (\$8,000).
- 2012 [National Science Foundation Faculty Early Career Award #1148879](#)—*Population Dynamics and Evolutionary Ecology of Virus Emergence* (\$763,900).
- 2011 Professional Staff Congress-CUNY Award # 64621-00-42—*Determination of Structural Changes in Bacteriophage ϕ 6 Host Attachment Protein P3 on Adaptation to a Novel Host* (\$5,995).
- 2010 Queens College [Undergraduate Research/Mentoring Education Award](#)—funding to support undergraduate research project, *Host-Induced Variation among Bacteriophages* (\$1,250).
- 2009 Queens College [Undergraduate Research/Mentoring Education Award](#)—funding to support Genomics Research Experience I & II courses (\$3,000).
- 2009 Queens College Research Enhancement Award—funding for teaching relief time for graduate student to focus on research for one year (\$16,380).
- 2009 [National Science Foundation Division of Molecular and Cellular Biosciences Award #0918199](#)—*Genetic and Molecular Basis of Bacteriophage Life History Variation* (\$174,155).
- 2009 Integrated Research Strategy Award from [New York City Louis Stokes Alliance for Minority Participation in Science Technology, Engineering and Mathematics](#) —funding for development of Genomics Research Experience I & II course (\$3,000).
- 2009 Professional Staff Congress-CUNY Award #62886-00-40— *Viral Emergence in Multihost Habitats* (\$2,900).
- 2009 Queens College Research Enhancement Award—funding to obtain preliminary data for an NSF Division of Molecular and Cellular Biosciences grant proposal (\$10,000).
- 2009 Research Assistantships for High School Students Supplement to [National Science Foundation Division of Environmental Biology Award #0804039](#) (\$17,848).
- 2008 Howard Hughes Medical Institute, Science Education Alliance, [National Genomics Research Initiative](#)—Accepted as Associate Member
- 2008 [National Science Foundation Division of Environmental Biology Award #0804039](#) — *Population Dynamics and Evolution of Emerging Viruses* (\$50,000).
- 2008 Professional Staff Congress-CUNY Award #61034-00-39—*Population Dynamics and Evolution of Viral Emergence* (\$6,000).
- 2003 [National Science Foundation Division of Biological Infrastructure Award #0310205](#)—*Adaptive Landscapes and the Evolution of Cooperation in RNA Viruses* (\$160,000).

PUBLICATIONS (^DDoctoral, ^MMasters, ^UUndergraduate, ^HHigh School) [View in Google Scholar](#)

31. ^DGhusinga K, **Dennehy JJ** & Singh A. 2017. First-passage time approach to controlling noise in timing of intra-cellular events. [Proceedings of the National Academy of Sciences USA 114: 693–698](#). (Citations: 11).
32. **Dennehy JJ**. 2016. Evolutionary ecology of virus emergence. [Annals of the New York Academy of Sciences: The Year in Evolutionary Biology 1387: 1-23](#). (Citations: 1).
29. ^MEsposito LA, ^UGupta S, ^UPrasad A, ^UStreiter F & **Dennehy JJ**. 2016. Evolutionary interpretations of mycobacteriophage biodiversity and host-range through the analysis of codon usage bias. [Microbial Genomics doi: 10.1099/mgen.0.000079](#). (Citations: 2).
28. ^DAhmadi M, Torshizi MAK, Rahimi S & **Dennehy JJ**. 2016. Prophylactic bacteriophage administration more effective than post-infection administration in reducing *Salmonella* enteritidis shedding in quails. [Frontiers in Microbiology 09 August 2016](#). (Citations: 4).
27. Pope WH, Bowman CA, Russell DA, Jacobs-Sera D, **Science Education Alliance Phage Hunters Advancing Genomics and Evolutionary Science (SEA PHAGES)**, Phage Hunters Integrating Research and Education (PHIRE), Mycobacterial Genetics Course (MGC), Cresawn SG, Jacobs WR Jr, Hendrix RW, Lawrence JG, & Hatfull GF. 2015. Whole genome comparison of a large collection of mycobacteriophages reveals a continuum of phage genetic diversity. [eLife 4:e06416](#). (Citations: 90).
26. ^DFord BE, ^USun B, ^DCarpino J, ^UChapler ES, ^UChing J, ^UChoi Y, ^UJhun K, ^UKim JD, ^ULallos GG, ^UMorgenstern R, ^USingh S, ^UTheja S, & **Dennehy JJ**. 2014. Frequency and fitness consequences of bacteriophage $\phi 6$ host range mutations. [PLoS ONE 10.1371/journal.pone.0113078](#) (Citations: 11).
25. **Dennehy JJ**. 2014. What ecologists can tell virologists. [Annual Review of Microbiology 68:117–35](#). (Citations: 13).
24. Singh A & **Dennehy JJ**. 2014. Stochastic holin expression can account for lysis time variation in the bacteriophage λ . [Journal of the Royal Society Interface 11, 20140140](#) (Citations: 24).
23. Jordan TC, Burnett SH, Carson S, Caruso SM, Clase K, DeJong RJ, **Dennehy JJ**, Denver DR, Dunbar D, Elgin SCR, Findley AM, Gissendanner CR, Golebiewska UP, Guild N, Hartzog GA, Grillo WH, Hollowell GP, Hughes LE, Johnson A, King RA, Lewis LO, Li W, Rosenzweig F, Rubin MR, Saha MS, Sandoz J, Shaffer CD, Taylor B, Temple T, Vazquez E, Ware VC, Barker LP, Bradley KW, Jacobs-Sera D, Pope WH, Russell DA, Cresawn SG, Lopatto D, Bailey CB & Hatfull, GF. 2014. A broadly implementable research course for first-year undergraduate students. [mBio 5\(1\)](#) (Citations: 120).
22. Hatfull GF, **Science Education Alliance Phage Hunters Advancing Genomics and Evolutionary Science (SEA-PHAGES) program**, KwaZulu-Natal Research Institute for Tuberculosis and HIV (K-RITH) Mycobacterial Genetics Course, University of California Los Angeles Research Immersion Laboratory in Virology, Phage Hunters Integrating Research and Education (PHIRE) program. (2013). The complete genome sequences of 63 mycobacteriophages. [Genome Announcements Vol. 1 No. 6 e00847-13](#). (Citations: 14).

21. **Dennehy JJ**, ^DDuffy S, O'Keefe KJ, Edwards SV & Turner PE. 2013. Frequent coinfection reduces RNA virus population genetic diversity. [*Journal of Heredity* 104: 704-712](#) (Citations: 5).
22. **Dennehy JJ**. 2012. What can bacteriophages tell us about host-parasite coevolution? [*International Journal of Evolutionary Biology, Article ID 396165*](#) (Citations: 32)
20. Hatfull GF, **the Science Education Alliance Phage Hunters Advancing Genomics and Evolutionary Science Program**, the KwaZulu-Natal Research Institute for Tuberculosis and HIV Mycobacterial Genetics Course Students, and the Phage Hunters Integrating Research and Education Program. 2012. The complete genome sequences of 138 mycobacteriophages. [*Journal of Virology* 86: 2382-2384](#) (Citations: 58).
19. ^UChing J, ^UMusheyev SA, ^HChowdhury D, ^HKim JA, ^UChoi Y & **Dennehy, JJ**. 2012. Migration enhances adaptation in bacteriophage populations evolving in ecological sinks. [*Evolution* 67: 10–17](#) (Citations: 9).
18. ^ULi J & **Dennehy JJ**. 2011. Differential bacteriophage mortality on exposure to copper. [*Applied and Environmental Microbiology* 77:6878-6883](#) (Citations: 19).
17. **Dennehy, JJ** & Wang, I-N. 2011. Factors influencing lysis time stochasticity in bacteriophage λ . [*BMC Microbiology* 11:174](#) (Citations: 22; Highly Accessed).
16. **Dennehy, JJ**, Friedenberg NA, McBride RC, Holt RD & Turner PE. 2010. Experimental evidence that source genetic variation drives pathogen emergence. [*Proceedings of the Royal Society, B - Biological Sciences* 277: 3113-3121](#) (Citations: 18).
15. ^DKhatchikian CE, **Dennehy JJ**, ^DVitek CJ & Livdahl TP. 2010. Environmental effects on bet hedging in *Aedes* mosquito egg hatch. [*Evolutionary Ecology* 24:1159–1169](#) (Citations: 25).
14. Marshall JC, ^UButtars PR, ^UCallahan T, **Dennehy JJ**, ^DHarris DJ, ^ULunt B & ^UShupe R. 2009. In the academic job market, will you be competitive? A case study in ecology and evolutionary biology. [*Israel Journal of Ecology & Evolution* 55: 307-313](#) (Citations: 5).
13. **Dennehy JJ**. 2009. Bacteriophages as model organisms for virus emergence research. [*Trends in Microbiology* 17: 450-457](#) (Citations: 37).
12. ^DKatchikian CE, **Dennehy JJ**, ^DVitek CJ & Livdahl TP. 2009. Climate and geographic trends in hatch delay of the treehole mosquito, *Aedes triseriatus* Say (Diptera: Culicidae). [*Journal of Vector Ecology* 34: 119-128](#) (Citations: 15).
11. **Dennehy JJ**, Abedon ST & Turner PE. 2007. Host density impacts relative fitness of bacteriophage $\Phi 6$ genotypes in structured habitats. [*Evolution* 61: 2516-2527](#) (Citations: 23).
10. **Dennehy JJ**, Friedenberg N, ^UYang Y & Turner PE. 2007. Virus population extinction via ecological traps. [*Ecology Letters* 10: 230–240](#). (Subject of articles in the [*New York Times*](#) by Carl Zimmer and [*New Scientist*](#) by Janet Ginsburg) (Citations: 34).

9. ^DMonello RJ, **Dennehy JJ**, ^UWirsing AJ & Murray D. 2006. Growth and behavioral responses of tadpoles of two native frogs to an exotic competitor, *Rana catesbeiana*. [Journal of Herpetology 40: 403-407](#) (Citations: 17).
8. **Dennehy JJ**, FriedenberG N, ^UYang Y & Turner PE. 2006. Bacteriophage migration via nematode vectors: host-parasite-consumer interactions in laboratory microcosms. [Applied and Environmental Microbiology 72: 1974-1979](#) (Citations: 15; Recommended Paper: Faculty of 1000).
7. **Dennehy JJ**, FriedenberG N, Holt RD & Turner PE. 2006. Viral ecology and the maintenance of novel host use. [The American Naturalist 167: 429-439](#) (Citations: 58; Recommended Paper: Faculty of 1000).
6. Evans MEK & **Dennehy JJ**. 2005. Germ Banking: bet hedging and variable release from egg and seed dormancy. [Quarterly Review of Biology 80: 431-451](#) (Citations: 123).
5. **Dennehy JJ** & Turner PE. 2004. Reduced fecundity is the cost of cheating in RNA virus $\Phi 6$. [Proceedings of the Royal Society, B - Biological Sciences 271: 2275-2282](#) (Citations: 26).
4. **Dennehy JJ** & Livdahl TP. 2004. Polymorphic foraging behavior among *Caenorhabditis elegans*. Frequency- and density-dependent selection. [Journal of Nematology 36: 276-280](#) (Citations: 4).
3. **Dennehy JJ**, Robakiewicz P & Livdahl TP. 2001. Larval rearing conditions affect kin-mediated cannibalism in a treehole mosquito. [Oikos 95: 335-339](#) (Citations: 9).
2. **Dennehy JJ**. 2001. Influence of social dominance rank on diet quality of pronghorn females. [Behavioral Ecology 12: 177-181](#) (Citations: 21).
1. **Dennehy JJ** & Livdahl TP. 1999. First record of *Toxorhynchites rutilus* (Diptera: Culicidae) in Massachusetts. [Journal of the American Mosquito Control Association 15: 24-25](#) (Citations: 3).

CONFERENCE PAPERS (Peer-reviewed)

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- ^UBlotnick JA, ^DVargas CA, **Dennehy JJ**, Zurakowski R & Singh A. 2017. The effect of multiplicity of infection on the temperateness of a bacteriophage: implications for viral fitness. 56th IEEE Conference on Decision and Control, Melbourne, Australia.
- Conway, JE, **Dennehy JJ** & Singh A. 2016. Optimizing phage λ survival in a changing environment: stochastic model predictions. 55th IEEE Conference on Decision and Control, Las Vegas, NV. DOI: 10.1109/CDC.2016.7799174
- ^DGhusinga KR, **Dennehy JJ** & Singh A. 2014. First passage time stochasticity in a gene network with feedback regulation. Northeast Bioengineering Conference (NEBEC), Boston, MA, 2014, pp. 1-2. doi: 10.1109/NEBEC.2014.6972797.
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BOOK CHAPTERS

Dennehy JJ, Letarov A & Abedon ST. 2018. Phage productive infections and lysis. In *Bacteriophages: Biology, Technology, Therapy*. Harper DR, Abedon ST, Burrowes B & McConville M (eds). Springer Publishing. In press.

Dennehy JJ, Letarov A & Abedon ST. 2018. Bacteriophage ecology, population biology and mathematical models. In *Bacteriophages: Biology, Technology, Therapy*. Harper DR, Abedon ST, Burrowes B & McConville M (eds). Springer Publishing. In press.

^DFord BE, ^UBaloh M & **Dennehy JJ**. 2018. Evolutionary ecology of the viruses of microorganisms. In *Viruses of Microorganisms: Diversity, Molecular Biology and Applications*. Hyman P & Abedon ST (eds). Caister Academic Press. In press.

BOOK REVIEWS

Dennehy JJ. Review of *Thinking Like a Phage: The Genius of the Viruses That Infect Bacteria and Archaea*, Merry Youle, Wholon Press, 2018. Appearing in *Quarterly Review of Biology*, in press.

Dennehy JJ. Review of *Bacteriophage Ecology: Population Growth, Evolution and Impact of Bacterial Viruses*. Stephen T. Abedon (Ed.) *Advances in Molecular and Cellular Microbiology*, Vol. 15. Cambridge University Press. Appearing in *Quarterly Review of Biology*, 2010. Vol. 85, p. 109.

NATIONAL AND INTERNATIONAL CONFERENCE PRESENTATIONS - PAST FIVE YEARS (#Presenting Author and Degree Status)

2018 ^{#,U}Urgiles C, ^UAlrubaye H, ^DGhusinga K, Singh A & **Dennehy JJ**. Does cell growth rate affect lysis timing in *Escherichia coli* phage lambda? NYC SEA-PHAGES Symposium at Mount Saint Mary College (Invited Talk).

^{#,U}Alrubaye H, Turner P & **Dennehy JJ**. Mechanisms of RNA virus thermotolerance evolution. NYC SEA-PHAGES Symposium at Mount Saint Mary College (Best Poster Prize).

^{#,U}Kubota N, ^MRosario E & **Dennehy JJ**. Mutations and selection in *Erwinia amylovora* phages adapting to host's codon usage patterns. NYC SEA-PHAGES Symposium at Mount Saint Mary College (Best Poster Runner Up).

^{#,U}Tandalam S, ^DHoxie I, ^DFord B, ^UMu K & **Dennehy JJ**. Host-acquired factor impacts fitness on subsequent hosts in an RNA virus. NYC SEA-PHAGES Symposium at Mount Saint Mary College.

2017 [#]**Dennehy JJ**, ^UUrgiles C, ^UAlrubaye H, ^DGhusinga K, Singh A. Does cell growth rate affect event timing in *Escherichia coli*? Texas Phages 2017, College Station, Texas. (Talk).

^{#,U}Alrubaye H, ^UUrgiles C, ^DGhusinga K, Singh A & **Dennehy JJ**. Dependency of bacteriophage lambda lysis time on host growth rate. Annual Biomedical Research Conference for Minority Students, Phoenix, AZ (Poster).

2016 [#]**Dennehy JJ**, ^DLin E, ^DFord BE, ^DLarracuente A, ^DBythroe G, ^UBaloh M, ^UToubiyan D & Qiu W. The benefits of sticking together: cellular aggregation and fitness in *Pseudomonas*

- pseudocaligenes*. Sigma Xi Scientific Research Society Annual Meeting, Atlanta GA. (Poster).
- #^UCali VJ & **Dennehy JJ**. The effects of mutations in translational regulation of lambda S gene on bacteria lysis. Annual Biomedical Research Conference for Minority Students, Tampa, FL. (Poster).
- #^UUrgiles C & **Dennehy JJ**. Does cell growth rate affect event timing in *Escherichia coli*? Annual Biomedical Research Conference for Minority Students, Tampa, FL. (Poster).
- #^URosario E & **Dennehy JJ**. Determining function of two unidentified ORFs in bacteriophage $\phi 6$. Annual Biomedical Research Conference for Minority Students, Tampa, FL. (Poster).
- #Singh A, ^DGhusinga K, ^DVargas C & **Dennehy JJ**. First-passage time approach to modeling timing phenomena in single cells. European Conference for Mathematical and Theoretical Biology, Nottingham, UK. (Talk).
- 2015 #**Dennehy JJ**, ^UBaloh M, ^UGupta S, ^UPrasad A & Singh A. Incoherent feedforward control of bacteriophage lambda lysis timing. Gordon Research Conference: Microbial Population Biology, Andover, NH. (Poster).
- #**Dennehy JJ**, ^UBaloh M, ^UGupta S, ^UPrasad A & Singh A. Incoherent feedforward control of bacteriophage lambda lysis timing. Evolution '15, Guaruja, Brazil. (Talk).
- #**Dennehy JJ**, ^UBaloh M, ^UGupta S, ^UPrasad A & Singh A. Incoherent feedforward control of bacteriophage lambda lysis timing. XXIV Biennial Conference on Phage/Virus Assembly, Les Diablerets, Switzerland. (Talk).
- #^URosario E, ^DCarpino J & **Dennehy JJ**. Screening for compensatory evolution in mutated $\phi 6$ bacteriophage. 23rd Annual CSTEP Conference, Lake George, NY. (Best Poster in Biology prize).
- #Singh A, ^DGhusinga K & **Dennehy JJ**. Modeling bacteriophage lambda lysis time through first-passage time calculations. 2015 Annual Meeting of the Society for Mathematical Biology, Atlanta, GA. (Talk).
- 2014 #^UShah Q, ^UBaloh M, & **Dennehy JJ**. Relative fitness predicts probability of virus emergence in a novel host. Annual Biomedical Research Conference for Minority Students, San Antonio, TX. (Poster).
- #^URosario E, ^DCarpino J, & **Dennehy JJ**. Screening for compensatory evolution in mutated $\phi 6$ bacteriophages. Annual Biomedical Research Conference for Minority Students, San Antonio, TX. (Best Poster prize).
- #^DFord BE, ^UToubiyan D, ^UBaloh M, ^DLin E* & **Dennehy JJ**. Bacteria-phage dynamics following a host shift to a planktonic phenotype. Molecular Genetics of Bacteria and Phages, Madison, WI. (Poster).
- #^DGhusinga K, **Dennehy JJ** & Singh A. First passage time stochasticity in a gene network with feedback regulation. Northeast Bioengineering Conference, Boston, MA. (Talk).

INVITED PRESENTATIONS

- 2017 • *Event Timing in Single Cells*. Department of Biology, Kent State University, Ohio.
- 2016 • *Assessing Impacts of Integrating Research Experiences into the Curricula*, CUNY Research in the Classroom Workshop, John Jay College CUNY
• *Codon Usage Bias and Bacteriophage Genomics*, ACS Middle Atlantic Annual Meeting
• *Event Timing in Single Cells*, Department of Biology, Lehman College CUNY
- 2015 • *Event Timing in Single Cells*, Division of Science, NYU-Abu Dhabi, United Arab Emirates
• *Event Timing in Single Cells*, Department of Biology, New York University
• *How to Build a Virus*, Science Lecture Series at SUNY Rockland Community College
- 2014 • *Mathematical Modeling in Biology*, Bioquest Interdisciplinary STEM Education for Millennial Students Workshop, BioQUEST Curriculum Consortium's 28th Annual Curriculum Development Workshop, Interdisciplinary Science Learning Laboratory, University of Delaware
- 2013 • *Stochastic Variation in Bacteriophage λ Life History Traits*, Center for Bioinformatics and Computational Biology, University of Delaware
- 2010 • *Embedding Research into the Biology Curriculum*, Innovation in Biological Research and Education in the Molecular and Cellular Biosciences, Division of Molecular and Cellular Biosciences, National Science Foundation, Arlington, VA
- 2009 • *Host Range Expansion in the Bacteriophage $\phi 6$* , Department of Biology, Fordham University
• *Host Range Expansion in the Bacteriophage $\phi 6$* , Department of Ecology and Evolutionary Biology, Stony Brook University
• *Host Range Expansion in the Bacteriophage $\phi 6$* , Department of Biology, Clark University
• *Why Evolution Matters: A Microbiologist's Perspective*, Darwin Day Celebration, Revolution Books, NYC.
- 2008 • *Genetic Variation Impacts Evolution in a Black Hole Sink*, The Noble Foundation's Fifth Workshop in Virus Evolution, Samuel Roberts Nobel Foundation
• *Applied community ecology: using bacteriophages to model viral emergence and anti-viral therapy*, Department of Biology, Southern Utah University
• *Bacteriophage Population Dynamics in Communities Containing Multiple Hosts*, Viral Paradigms Workshop, Georgia Institute of Technology
• *Applied Community Ecology: Using Bacteriophages to Model Virus Population Extinction via Ecological Traps*, Department of Biology, Queens College, CUNY
- 2007 • *Bacteriophage population dynamics in communities containing multiple hosts*, Department of Biology, University of Toronto: Mississauga.
- 2003 • *The Paradox of Sex and Recombination: Testing Hypotheses with *Caenorhabditis elegans**, Department of Zoology, University of British Columbia: Vancouver

- 2002 • *The Paradox of Sex and Recombination: Testing Hypotheses with Caenorhabditis elegans*,
Department of Ecology and Evolutionary Biology, Yale University
- *The Paradox of Sex and Recombination: Testing Hypotheses with Caenorhabditis elegans*,
Department of Biology, University of Oregon

TEACHING

Bio 201 - General Microbiology (2008-2015, 2017-2018)
 Bio 34 - Genomics Research Experience I (2009-2013)
 Bio 35 - Genomics Research Experience II (2010-2014)
 Bio 386, Bio 786 - Ecology and Evolution of Infectious Disease (2009, 2012, 2014, 2016)

SERVICE AND ACTIVITIES

(A) COLLEGE/UNIVERSITY

CUNY Graduate Center

Deputy Executive Officer, Biology Doctoral Program	2017 - present
Doctoral Program Faculty Review Committee	2015 - 2016
Molecular, Cellular and Developmental Biology Advisory Committee	2010
Dissertation Fellowship Reviewer	2009, 2013, 2018
Graduate Student Recruitment Committee	2008
Appointed, Molecular, Cellular and Developmental Biology Subprogram	2008 - present
Appointed, Ecology Evolutionary Biology and Behavior Subprogram	2007 - present

Queens College

Science Organization of Minority Students (faculty advisor)	2015 - present
Minority Association of Premed Students (faculty advisor)	2015 - present
Dean of Math and Natural Sciences Search Committee	2014 - 2015
Quantitative Reasoning across the Curriculum participant	2014 - 2015
Undergraduate Research/Mentoring Education Proposal Review panelist	2014
Director of Undergraduate Research	2014 - present
Council on Undergraduate Research Dialogues participant	2012 - 2013
Launching Graduates Subcommittee of QC Strategic Planning Committee	2012
DMNS Service Contract Committee	2012 - 2013
HHMI Initiative for Colleges proposal team	2011 - 2012
Experiential Education Council	2011 - present
Council on Undergraduate Research Committee	2011 - present

Queens College Biology Department

Graduate Advisory Committee (Chair)	2017 - present
Maximizing Access to Research Careers (MARC) Steering Committee	2015 - present
Personnel and Budget Committee	2014 - present
Biology Honors Society advisor	2014 - present
Ecological Modeling Faculty Search Committee	2012 - 2013
Supervisor, Core Facility for Imaging, Cellular and Molecular Biology	2011 - present
Teaching Evaluation Committee - Adjunct and Graduate Student	2010 - present
Fogel Endowment Fund Advisory Committee (Chair)	2010 - present
Graduate Advisory Committee	2009 - 2015
Academic Advisement Committee	2008 - 2011
Alumni & Endowment Funds—Subcommittee on Alumni Fund	2008 - 2011
Core Facility Equipment Review Committee (Chair)	2008 - 2015
Honors, Awards & Scholarships Committee	2008 - 2011
Evolutionary Developmental Biologist Faculty Search Committee	2008 - 2009

College Laboratory Technician Search Committee	2008
<i>Biology Currents</i> Editorial Board	2008 - 2011
Undergraduate Student Advisor	2007 - 2015

(B) PROFESSION

Ad hoc manuscript referee

American Naturalist (3), Animal Behavior, Applied and Environmental Microbiology (3), Behavioral Ecology, Biological Journal of the Linnaean Society, BMC Evolutionary Biology (3), Ecological Entomology, Ecology Letters, Evolution (6), FEMS Microbiology Ecology, FEMS Microbiology Letters, FEMS Microbiology Reviews, Frontiers in Microbiology (2), Genome Biology and Evolution, Journal of Bacteriology (2), Journal of Biomedicine and Biotechnology, Journal of Molecular Evolution (2), Journal of Theoretical Biology, Journal of Virology, International Journal of Evolutionary Biology, International Society for Microbial Ecology, Microbial Informatics and Experimentation, Molecular Biology and Evolution, Nature Communications, Oikos, Peer J, PLoS Genetics (2), PLoS One (4), Trends in Microbiology

Senior Editor

- American Society for Microbiology's *Microbiology Resource Announcements*

Interviewee

- [Viruses Would Rather Jump to New Hosts than Evolve with Them](#), *Quanta Magazine*, September 13, 2017; republished by *Wired*.
- What kind of attraction is most important in your research?, *Nautilus Magazine*, January 2016.
- [Science Forward](#) video series, May 2014.
- [Cancer, the Consummate Traveler](#), *Nautilus Magazine*, December 12, 2013.

President

- *Sigma Xi Research Society, Queens College Chapter* (2015 – 2018)

Symposia Organizer

- *Phage Hunters of New England* at the Graduate Center of the City University of New York (2018)
- [Stochastic Dynamics in Living Cells](#) at the Graduate Center of the City University of New York (2015)
- *Phage Summit* at Queens College of the City University of New York (2013)

Steering Committee Member

- The PHAGE Galaxy: A Consortium for Phage Hunting and Genomics Education for Undergraduates (2010 – present)
- Maximizing Access to Research Careers program (2015 – present)

Panel Member and Reviewer

- NIH Genetic Variation and Evolution (GVE) Study Section (2018)
- NSF Graduate Research Fellowship Program in Evolutionary Biology (2013)
- NSF Science and Technology Center Site Review Team for *BEACON: An NSF Center for the Study of Evolution in Action* at Michigan State University (2011)
- NSF Advisory Panel in Evolutionary Processes Cluster of the Division of Environmental Biology (2010, 2016)

Ad Hoc Grant Proposal Reviewer

- Polish National Science Centre (2017)
- National Science Foundation Division of Molecular and Cellular Biosciences (2010)

- The U.S. Army Research Office (2009)
- Civilian Research and Development Foundation (2009)
- CUNY Community College Collaborative Incentive Research Grant Program (2009)

Mentoring

- Science Organization of Minority Students (2015 – present)
- Minority Association of Premed Students (2015 – present)
- Queensborough Bridges to the Baccalaureate program (2009 – present)
- Louis Stokes Alliance for Minority Participation in STEM (2009 – present)
- Maximizing Access to Research Careers (MARC) (2007- present)

Invited Participant

- Innovation in Biological Research and Education in the Molecular and Cellular Biosciences, National Science Foundation (2009)
- NSF Postdoctoral Workshop to Broaden Participation in the Sciences (2004)

(C) COMMUNITY

- Judge, WAC Lighting Foundation Invitational Science Fair (2014)
- Organizer, *No Dinosaurs in Heaven* film screening and discussion (2011)
- A Day for Darwin* Symposium Committee (Chair, 2008 – 2009)
- Blog – The Evolutionary Biologist* (2007 – 2009)

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Council on Undergraduate Research (2014-2017)
- Sigma Xi Scientific Research Society (2008-present)
- American Society for Microbiology (2008-present)
- Society for the Study of Evolution (2005-present)
- American Society of Naturalists (2005-present)

STUDENTS ADVISED

SUMMARY

- Mentored a total of 77 students (7 PhD, 7 MA, 45 UG, 18 HS)
- 13 students from underrepresented groups
- 12 undergraduates went on to research Masters or PhD programs

POSTDOCTORAL ASSOCIATES

- Sherin Kannoly (2018-present)

PHD STUDENTS

- Irene Hoxie—Graduate Center of the City University of New York (2016 - present)
- Niklas Janisch —Graduate Center of the City University of New York (2016, rotation)
- Emily Sible—Graduate Center of the City University of New York (2016, rotation)
- Sruti Patoori—Graduate Center of the City University of New York (2014, rotation)
- Glennon Bythroe—Graduate Center of the City University of New York (2013, rotation)
- Emily Lin—Graduate Center of the City University of New York (2013 - 2016)
- Brian Ford—Graduate Center of the City University of New York (2011-5)
 - Postdoctoral Fellow, University of Newcastle, UK

- James Carpino—Graduate Center of the City University of New York (2008-2014)

MASTERS STUDENTS

- Hisham Alrubaye (2018 – present)
 - 1st Prize Best Poster, NYC SEA-PHAGES Symposium at Mount Saint Mary College
- Elsa Rosario (2017 – present)
- Zachary Way (2016 – present)
 - Best Poster Honorable Mention, 31st Annual Sigma Xi Research Day, Queens College Chapter (2017)
- Lauren Esposito (2014 - 2016)
 - MPH program at Mt. Sinai College of Medicine '18
 - Research Scientist for the New York City Bureau of Sexually Transmitted Diseases and Prevention
- Gregory Lалlos (2011 - 2013)
 - Senior Research Technician, Regeneron Pharmaceuticals
- Jinyu Li (2010 - 2013)
 - Lab Technician at Accupath Laboratories
- Bruce Sun (2009 - 2011)
 - Senior Research Technician, Blue Rock Therapeutics

DISSERTATION OR THESIS COMMITTEE MEMBERSHIP

- Jonathan Goldstein—MA Biology, Queens College (2014)
- Tatiana Garces—MA Biology, Queens College (2014)
- Maylalyal Salameh—MA Biology, Queens College (2014)
- Huansheng Cao—PhD Biology, Fordham University (2012)
- Sai Theja—MA Biology, Queens College (2011)
- Wasseem Moarsi— MA Biology, Queens College (2010)
- Ryan Vinberg— MA Biology, Queens College (2010)
- Akash Sookdeo— MA Biology, Queens College (2010)
- Enobong Shammah— MA Biology, Queens College (2009), Committee Chair

UNDERGRADUATE STUDENTS

- Michelle Markman (2018 – present)
- Anna Gao (2017 - present)
- Tevin Lynch (2017 - present)
- David Musheyev (2017 - present)
- Gabriella Oken (2017 - present)
- Nanami Kubota (2017 - present)
 - 2nd Prize Best Poster Runner Up, NYC SEA-PHAGES Symposium at Mount Saint Mary
- Hisham Alrubaye (2016-present)
 - Maximizing Access to Research Careers (MARC)
 - Yale University Summer Undergraduate Research Program
 - 1st Prize Best Poster, NYC SEA-PHAGES Symposium at Mount Saint Mary College
- Sangeetha Tandalam (2015-present)
 - Feigelson Award (Best Undergraduate Research in Biology, 2018)
- Lixing He (2015)
- Vincent-Joe Cali (2015-present)

- Maximizing Access to Research Careers (MARC)
 - Rutgers University Summer Undergraduate Research Program
 - Colwin Award (Best Undergraduate Research in Biology, 2018)
- Carmen Urgiles (2015-present)
 - Maximizing Access to Research Careers (MARC)
 - Invited Talk, NYC SEA-PHAGES Symposium at Mount Saint Mary
- Boryana Baric (2014-2015)
- Paola Lozada (2014-2016)
 - Certified Medical Assistant, Professional Endocrinology of NY
- Peter Scimeni (2014-2015)
- Zachary Way (2014-present)
 - Best Poster Honorable Mention, 31st Annual Sigma Xi Research Day, Queens College Chapter (2017)
 - Colwin Award (Best Undergraduate Research in Biology, 2017)
- Jonathan Itzhakov (2014-2015)
- Aaron Wadler (2014-2015)
- Fraida Streiter (2014-2016)
- Elsa Rosario (2014-present)
 - Maximizing Access to Research Careers (MARC)
 - Best Poster in Microbiology prize, ABRCMS 2014, San Antonio, TX
 - Best Poster in Biology prize, 23rd Annual CSTEP Conference, Lake George, NY
- Daniel Grossman (2013-2014)
- Ashley Prasad (2013-2016)
- Rahat Shah (2013-2015)
 - Medical Assistant, All Island Neurology
- David Toubyian (2013-2015)
 - St. Georges School of Medicine '19
- Marko Baloh (2012-2016)
 - PhD Program at Texas A&M University
- Qainat Shah (2012-2015)
 - Award for Best Undergraduate Research in Neuroscience
 - 1st runner up, Best Poster Presentation, QC Undergraduate Research Day 2014
 - Maximizing Access to Research Careers (MARC)
 - Yale University Summer Undergraduate Research Program
 - MPH program at Mt. Sinai College of Medicine '17
- Lauren Esposito (2011-2014)
 - Feigelson Award (Best Undergraduate Research in Biology, 2014)
 - MS Queens College '16
 - MPH program at Mt. Sinai College of Medicine '18
- Swati Gupta (2011-2015)
 - Thomas Jefferson University's Accelerated Professional Master's program '18
- Elizabeth Chapler (2011-2013)
 - Honors in the Mathematical and Natural Sciences
 - Physician Assistant program at Pace University '15
 - Physician Assistant at NYU Langone Medical Center
- Stephanie Gampel (2011-2012)
 - Lucile Lindberg Scholarship

- Albert Einstein College of Medicine '16
- Rachel Morgenstern (2011-2012)
 - MPH program at Columbia University Mailman School of Public Health '15
- Lauren Mordukhaev (2010-2013)
 - Honors in the Mathematical and Natural Sciences, Macaulay Honors College
 - Charles Darwin Award (Highest GPA, QC Biology Department)
 - Hofstra College of Medicine '18
- Kevin Mu (2010-2013)
 - Honors in the Mathematical and Natural Sciences, Macaulay Honors College
 - Macaulay Honors College Thesis Award
 - Feigelson Award (Best Undergraduate Research in Biology, 2013)
 - Lab Technician, Poss Lab, Center for Infectious Disease Dynamics, Penn State University
 - Cornell Veterinary College '18
- Jane Ching (2010-2012)
 - PharmD University of Maryland '16
- Shalini Singh (2010-2011)
 - NSF-STEP Queensborough Bridge Fellowship for Summer Research (2010)
 - Winner of 1st Prize for Best Poster at the 43rd Annual Meeting of the Metropolitan Association of College and University Biologists
 - City College '15
- Avi Bitterman (2010-2011)
 - Charles Darwin Award (Highest GPA, QC Biology Undergraduates)
 - Jefferson Medical College '16
- David Lee (2009-2011)
 - Honors in the Mathematical and Natural Sciences
- Jinyu Li (2009-2011)
 - Lab Technician at Accupath Laboratories
- Kevin Jhun (2009-2012)
 - Honors in the Mathematical and Natural Sciences, Macaulay Honors College
 - University Scholar Award, Queens College
 - Best poster prize, 2012 Sigma Xi conference
 - Feigelson Award (Best Undergraduate Research in Biology, 2012)
 - PhD program at Mt. Sinai Medical College
- Mark Johnson (2009)
- Carlos Romero (2009)
 - MA Biology Queens College '15
 - Design Lab Experience Coordinator at New York Hall of Science
- Emilsie Leconte (2009)
- Guylsda Alphonse (2009)
- Jung David Kim (2009-2011)
 - NSF-STEP Queensborough Bridge Fellowship for summer research (2009)
 - Summer Program for Undergraduate Research Award (2010)
- Svetlana Musheyev (2008-2009)
 - Feigelson Award (Best Undergraduate Research in Biology, 2009)
 - NYU School of Dentistry '15
- Sai Theja (2008-2009)

- NSF-STEP Queensborough Bridge Fellowship for Summer Research (2009)
- Summer Program for Undergraduate Research Award (2009)

HIGH SCHOOL STUDENTS

- Maressa Cumbermack, Townsend Harris (2016)
- Darsiya Krishnathasan, Townsend Harris (2016)
- David Musheyev, Townsend Harris (2016)
- Sasha Balkaran, Townsend Harris (2016)
- David Zarowin, Townsend Harris (2015)
- Samia Abedin, Townsend Harris (2014)
 - Columbia University '19
- Nimrod Gozum, Townsend Harris (2012-2013)
 - NYCSEF Semifinalist/Second Award in Microbiology
 - Stony Brook University '17
- Alan Chu, Francis Lewis (2012)
 - University of Rochester '17
- Shanawaj Khair, John Bowne (2011-2012)
 - 2012 NYSEF Finalist
 - Intel International Science and Engineering Fair 2012
 - Best poster prize, 2012 Sigma Xi conference
 - Stony Brook University '16
- Daniel Arango, John Bowne (2011-2012)
 - 2012 NYSEF Finalist
 - Intel International Science and Engineering Fair 2012
 - Best poster prize, 2012 Sigma Xi conference
 - Queensborough Community College '14
- Deborah Sands, John F. Kennedy (2008)
- Shajoti Rahman, Townsend Harris (2008-10)
 - Hunter College, CUNY '14
- Dipabali Chowdhury, Townsend Harris (2008-10)
 - NYCSEF Semifinalist/Second Award in Microbiology
 - Cornell University '14
 - Site Coordinator at Breakthrough New York
- Katherine Valles, Townsend Harris (2008-10)
 - NYCSEF Semifinalist/Second Award in Microbiology
 - Fordham University '14
 - IRTA Fellow at NIH
- Ashraf Hussain, Townsend Harris (2008-10)
- Lydia Wu, Townsend Harris (2007-2009)
 - Sophie B. Davis School of Biomedical Education, CUNY '13
 - Albany Medical College '16
- Julie Kim, Townsend Harris (2007-2009)
 - NYCSEF Semifinalist
 - Carnegie Mellon University '13
 - Community Organizer, NYC Mayor's Office of Immigrant Affairs
- Aneury Hernandez, Townsend Harris (2007-2009)
 - NYCSEF Semifinalist/Third Award in Microbiology

- University of Michigan '13

VISITING SCIENTISTS

- Dr. Saima Cheema—Queens College (2016 – present)
- Dr. Rafael Ovalle—Brooklyn College (2012 - 2013)
- Dr. Gillian Ryan—Dalhousie University (2009)
- Sophie Rigvava—George Eliava Institute of Bacteriophages, Microbiology and Virology (2009)