

Brooke A. Jude, PhD
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EDUCATION

PhD. Dartmouth College Geisel School of Medicine, Hanover NH 2008
Molecular and Cellular Biology/Microbiology Dissertation Advisor, Ronald K. Taylor

A.B. Colby College, Waterville, ME 2000
Double Major: Biology/ Religious Studies; *cum laude*

APPOINTMENTS

Associate Professor Biology 2017-present
Program Director Biology 2016-2017
Program Director Bard Rockefeller Semester in Science Program 2016-present
Assistant Professor Bard College, Biology Program 2009-2017
Program Director Bard College, Citizen Science Program 2010-2012
Visiting Assistant Professor Colby College, Biology Department 2007-2009

COURSES TAUGHT

BIO419- Biotechnology and Infectious Disease 2017
BIO158- Case Studies in Medical Biology 2017
BIO111- Microbes in the Environment 2017, 2018
Microbiology- Bard Prison Initiative (BPI), Eastern Correctional 2016
BIO145- Environmental Microbiology (4 credits/lab) 2013, 2015
BIO165- Microbial Techniques Workshop (2 credits/lab only) 2016
BIO201- Eukaryotic Genetics/Genetics and Evolution (4 credits/lab) 2010, 2013-present
BIO303- Microbiology (4 credits/lab) 2010- present
BIO314-Virology (4 credits/lab) 2009
BIO406- Cholera: Pandemics, Pathology and Molecular Mechanisms (2 credit seminar) 2011, 2016
BIO414-Virology (2 credit seminar) 2012
BIO427- Topics in Virology: Ebola (2 credit seminar) 2015
Applied Microbiology- Tutorial (1 student) 2013
Cholera- Tutorial (1 student) 2013, 2015

PUBLICATIONS

(underlined indicates undergraduate student)

Doing, G., Perron G.G., **Jude B.A.** Draft Genome of Violacein Producing *Iodobacter sp* From Hudson Valley Watershed. Genome Announcements. *In press.*

Bettina, A.M., Doing, G., O'Brien K., Perron G.G., **Jude, B.A.** Draft Genomes of Phenotypically Distinct *Janthinobacterium sp* Isolates Cultured From the Hudson Valley Watershed. Genome Announcements. *In press.*

O'Brien, K., Perron, G.G., **Jude, B.A.** Draft Genome of a Red Pigmented *Janthinobacterium sp.*, Native to the Hudson Valley Watershed. Genome Announcements. *In press.*

Jude, B.A. Strategies for developing a science communicator through science writing. *CourseSource*. <https://doi.org/10.24918/cs.2017.5>

Agate L, Beam D, Bucci C, Dukashin Y, Jo'Beh R, O'Brien K, **Jude B.A.** The search for violacein-producing microbes to combat *Batrachochytrium dendrobatidis*: a collaborative research project between secondary school and college research students *J. Microbiol. Biol. Educ.* 2016. 17(1):70-73 doi:10.1128/jmbe.v17i1.1002

Jude C.D., **Jude B.A.** Powerful soil: utilizing microbial fuel cell construction and design in an introductory biology course. *J. Microbiol. Biol. Educ.* 2015.16(2):286-288 doi:10.1128/jmbe.v16i2.934 **Selected as a highlighted article for print Spotlight Issue of JMBE, Summer 2016

Savage A.F. and **Jude, B.A.***. Starting Small: using microbiology to foster scientific literacy. *Trends Microbiol.* 2014 Jul;22(7):365-7.

Cerda-Maira F.A., Kovacicova G., **Jude, B.A.**, Skorupski K.A. and Ronald K. Taylor. Characterization of BreR Interaction with the Bile Response Promoters *breAB* and *breR* in *Vibrio cholerae*. *J Bacteriol.* 2013 Jan;195(2):307-17

Jude B.A.*, A 'Case' for Active Learning: Bard College faculty jointly review the National Center for Case Study Teaching (Buffalo Case Studies). *Journal of Microbiological Education (JMBE)*. 2012 July.

Jude B.A.*, Taylor R.K. The physical basis of type 4 pilus-mediated microcolony formation by *Vibrio cholerae* O1. *J Struct Biol.* 2011 Jul;175(1):1-9. Epub 2011 Apr 20. (*corresponding author)

Martinez R.M., **Jude B.A.**, Kirn T.J., Skorupski K., Taylor R.K. The role of FlgT in anchoring the flagellum of *Vibrio cholerae*. *Journal of Bacteriology.* 2010 Feb 12.

Jude B.A. , Martinez, R.M., Skorupski K.A., and Taylor R.K. Levels of the secreted *Vibrio cholerae* attachment factor GbpA are modulated via protease dependent degradation. *Journal of Bacteriology.* 2009 Nov;191(22):6911-7.

Clark S.E., **Jude, B.A.**, Danner G.R., Fekete F.A. Identification of a multidrug efflux pump in *Flavobacterium johnsoniae*. *Vet Res.* 2009 November-December;40(6):55

Wardwell, L.H., **Jude B.A.**, Moody J., Olcerst A., Gyure R.A., Nelson R.E., Fekete F.A. Pervasiveness of Mercury and Antibiotic Resistance Due to Co-selection in Sphagnum Core Samples Dating Back 2000 Years. *Geomicrobiology Journal.* 2009 June; 26(4):238-247

Swanson, I, **Jude B.A.**, Zhang A.R., Pucker A, Smith Z.E., and Golovkina T.A. Sequences within the gag Gene of Mouse Mammary Tumor Virus Needed for Mammary Gland Cell Transformation. *Journal of Virology.* 2006 Apr;80(7):3215-24

Kirn T.J** , **Jude B.A**** , and Taylor R.K. A colonization factor links *Vibrio cholerae* environmental survival and human infection. *Nature.* 2005 Dec 8;438(7069):863-6 (** co first author)

Jude B.A., Pobezinskaya Y., Bishop J., Parke S., Medzhitov R.M., Chervonsky A.V., Golovkina T.V. Subversion of the innate immune system by a retrovirus *Nature Immunol.* 2003 Jun;4(6):573-8.

Hook L.M., **Jude B.A.**, Ter-Grigorov V.S., Hartley J.W., Morse H.C. 3rd, Trainin Z., Toder V., Chervonsky A.V., Golovkina T.V. Characterization of a novel murine retrovirus mixture that facilitates hematopoiesis. *Journal of Virology.* 2002 Dec;76(23):12112-22.

BOOK CHAPTER

Jude, B.A. and Taylor, R. K. "Genetics of *Vibrio cholerae* pili and flagella," chapter in "*Vibrio cholerae*. Genomics and Molecular Biology." Eds. Faruque, S.M. Nair, G.B. 2008, Horizon Press.

BOOK

Jude, B.A. "Biotechnology and Infectious Disease." Book in Series. Momentum Press. 2017

MANUSCRIPTS IN PREPARATION

Doing, G., O'Brien, K., V., Bettina, A.M., **Jude, B.A.** Characterization and analysis of natural, violet pigment producing strains native to the Hudson River Valley, NY.

Dahan, D.A., Jude, B.A., Lamendella, R., Keesing, F., Perron, G.G. Exposure to Arsenic Alters the Microbiome of Larval Zebrafish.

PRESENTATIONS AND PROFESSIONAL MEETINGS

- Comparing Model Systems: Examining the Effect of Violacein on *Chytrid* and *C. elegans***
NEMPET (Northeastern Microbiologists: Physiology, Ecology and Taxonomy) Meeting. 2017
- Symposium Day Keynote Speaker at BHSEC Queens** 2016
- Moving Past the Resolution Limit: STED and PALM Microscopy** 2014
Science on the Edge Seminar. Bard College. Prof. Brooke Jude and Prof. Chris Lafratta
- The chemistry and biology of violacein: a purple antibiotic from the Esopus Creek** 2014
Lifetime Learning Institute Seminar. Bard College
Prof. Brooke Jude and Prof. Emily McLaughlin
- Powerful Soil: Microbial Fuel Cell Construction for Teaching 8th Graders Through Undergraduates (poster)** 2014
(Purple) Microbial Protectors: Analysis of violacein production in Hudson Valley microbes (oral)
NEMPET (Northeastern Microbiologists: Physiology, Ecology and Taxonomy) Meeting.
- (Purple) Microbial Protectors: Analysis of violacein production in Hudson Valley microbes.** 2014
Invited Keynote speaker, Vassar College. Hudson Valley Life Sciences Group Meeting.
- Characterization of *Batrachochytrium dendrobatidis* killing by violacein producing environmental microbial isolates of the Hudson Valley** 2014
Microbial Pathogenesis and Host Response Meeting, Cold Spring Harbor Laboratories
Smith, E., Miller, L., Tanner, J., Steckler, V., Bettina, A., Finn, M., North, M., Hoelzli, E., Ko-Ko, T., Norman, M., McLaughlin, E.C., Jude, B.A.
- Analysis, Characterization and Synthesis of Violacein from *Janthinobacterium* Isolate Extracts** 2012
Poster presentation: Matthew Norman, Joshua Tanner, Thant KoKo, Brooke Jude, and Emily C. McLaughlin; ACS Fall Meeting, Philadelphia, PA
- The Citizen Science Program at Bard College: improving science literacy in college freshmen** 2012
Oral presentation (Invited panelist): Jude, B.A. American Association of Immunologists
- A Microbe at Home: *Janthinobacterium* isolate as a case study for molecular genetic progress** 2012
Oral Presentation: Jude, B.A.; Ithaca College Biology Seminar Series
- The science of sticking/making science stick: teaching, research and Citizen Science Program development at Bard College** 2011
Microbiology & Molecular Pathogenesis Meeting
Celebration of Dr. Ronald K. Taylor 25th Lab Anniversary; Oral Presentation: Jude, B.A.
- Investigating the science of sticking: Analysis of attachment, biofilm and pigment production in Hudson Valley aquatic microbes** 2011
Oral Presentation (2 seminars): Jude, B.A. Smith College Life Sciences Colloquium Series
- Dartmouth Molecular and Cellular NIH Training Grant Series** 2010
Oral Presentation. Discussed research projects and work at Bard College in a seminar for students and postdoctoral associates funded by the Dartmouth Molecular and Cellular NIH Training Grant
(B.A. Jude was funded by this grant from 2004-2006)
- The science behind sticking: Revealing factors involved with surface attachment and biofilm production in a Hudson Valley bacterial isolate (oral presentation)**
Bard College Faculty Seminar Series
- Dartmouth LEAD Symposium for Women in Science and Medicine** 2010

Invited Panelist	
Bard College Matriculation Ceremony Invited Faculty Speaker	2010
The Time of Cholera: History of an infectious disease Bard Language and Thinking Rostrum Seminar Series: Invited Speaker	2010
What's Sticking to your Lobster?: Adventures in the Jude Lab Bard Biology Seminar Series: Oral Presentation	2009
Dartmouth Center for the Advancement of Learning (DCAL) Invited lecture	2009
Attachment and Detachment of <i>Vibrio cholerae</i>: a role for quorum sensing Boston Bacterial Meeting: Oral Presentation: Jude, B.A. and Taylor, R.K.	2007
Levels of the secreted <i>Vibrio cholerae</i> attachment factor GbpA are modulated by quorum sensing Oral and Poster Presentations: Jude, B.A. and Taylor, R.K. Host-Microbe Interaction EMBO/FEBS Lecture Course, Spetses, Greece	2006
Levels of the secreted <i>Vibrio cholerae</i> attachment factor GbpA are modulated by quorum sensing Poster Presentation: Jude, B.A. and Taylor, R.K.; ASM General Meeting.	2006
Bacterial attachment in the 'gutter and the gut': the characterization of GbpA in <i>Vibrio cholerae</i> Colby College Department of Biology Colloquia; Invited Seminar	2006
Analysis of the mechanism of TCP mediated autoagglutination and microcolony formation in <i>Vibrio cholerae</i> Oral Presentation: Jude, B.A. and Taylor, R.K.; US-Japan Cholera Conference	2005
Genetic transinteraction analysis of the mechanism of TCP mediated autoagglutination and microcolony formation in <i>Vibrio cholerae</i> Microbial Pathogenesis and Host Response Meeting, Cold Spring Harbor Symposiums Poster Presentation: Jude, B.A. , and Taylor, R.K.	2005
GbpA is a secreted GlcNAc binding protein that is important for <i>Vibrio cholerae</i> intestinal colonization and attachment to chitin Poster Presentation: Jude, B.A. , Kim, T.K. and Taylor, R.K. International Union of Microbiological Societies, San Francisco, CA	2005
<u>ABSTRACTS AND PRESENTATIONS BY STUDENTS</u>	
NEMPET (Northeastern Microbiologists: Physiology, Ecology and Taxonomy) Meeting. Poster Presentation Practical Prevention: Developing Methods to Lower Burden of <i>Vibrio cholerae</i> <u>Alexis Akingbade</u> , <u>Philippine Alba</u> , Cassandra Savino, Elizabeth Osborne-Schwartz, Francesca Di Rienzo, and Brooke A. Jude	2017
NEMPET (Northeastern Microbiologists: Physiology, Ecology and Taxonomy) Meeting. Oral presentations: Kelsey O'Brien (Awarded E. R. Leadbetter Memorial Scholarship to attend the meeting)	2016
American Society of Microbiology 49th Annual Regional Meeting; Albany, NY. Poster presentations: <u>Georgia Doing</u> and Brooke Jude, <i>Characterization of genetic knockouts in violacein producing microbes</i>	2014

Yangtsho Gyaltsen and Brooke Jude, *Violacein synthesis and Batrachochytrium dendrobatidis growth in environmentally-mimicked conditions of the Hudson Valley*

NEMPET (Northeastern Microbiologists: Physiology, Ecology and Taxonomy) Meeting. 2014

Poster presentations:

Georgia Doing and Brooke Jude, *Construction of Genetic Knockouts in Violacein Producing Microbes*

Yangtsho Gyaltsen and Brooke Jude, *Analysis of Violacein Production in Response to Environmentally Mimicked Conditions*

American Society of Microbiology 45th Annual Regional Meeting 2010

Albany, NY.

Poster: Bettina, A.M. and Jude, B.A.

Characterization of violacein hyper producing Janthinobacterium sp. Isolate from the Hudson River Valley

Host-Microbe Interaction EMBO/FEBS Lecture Course 2010

Spetses, Greece

Poster: Bettina, A.M. and Jude, B.A.

Characterization of the attachment and biofilm pathways and violacein production in local Janthinobacterium isolate.

PROFESSIONAL DEVELOPMENT

PATRIC/Rast Workshop at Argonne National Laboratory, Chicago IL 2017

ASM-LINK Fellow supported by ASM and NSF to attend ABRCMS, Tampa FL 2016

GCAT-SEEK Genomics Workshop- Juniata College, Metagenomics section. 2015

In collaboration with Prof. Gabriel Perron. (Fully funded)

Organized spring symposium of the Hudson Valley Life Sciences Group 2015

Bard College

GCAT-SEEK Genomics Workshop- Lycoming College, Prokaryotic Genetics 2014

(Fully funded, 3 members of Jude Lab, including 2 students, Georgia Doing and Yangtsho Gyaltsen)

Optical Microscopy and Imaging Course, Marine Biological Lab, Woods Hole, MA 2014

Summer Institute for Communicating Science, SUNY Stonybrook School of Journalism 2011

(Full Scholarship Awarded)

Graduate Student Teacher Training Workshop 2007

Dartmouth Center for Teaching and Learning, Hanover, NH

AFFILIATIONS AND MEMBERSHIPS

Council of Undergraduate Research (CUR)

American Society of Microbiology (ASM)

AAAS- American Association for the Advancement of Sciences

New York Academy of Science/Science Alliance

SENIOR PROJECT STUDENTS (41)

Alexis Akingbade 2018

Lillian Brennessel 2018

Miroslav Skular 2018

Jackson Barr 2017

Sophia Konstantine	2017
Dynte' Moore	2017
Kelsey O'Brien	2017
Elizabeth Osborne-Schwartz	2017
Cassandra Savino	2017
Deanna DePietro	2016
"Exploring Copper Tolerance in an Aquatic <i>Janthinobacterium</i> species: An Examination of Biofilm Formation and Viability for Environmental Applications"	
Yegor Dukashin	2016
"Examination of the Activity of Glycosyltransferases in the Development of <i>Streptococcus mutans</i> Biofilms in Response to Sucrose"	
Katherine Moccia	2016
"What makes a healthy aquatic environment? Investigating the Effects of Hydraulic Fracturing Material Glutaraldehyde on Bacterial Communities"	
Andrea Szegedy-Maszak	2016
"Optimization of the Microbial Fuel Cell for Use in Novel STEM Pedagogy"	
Tytravia Riley	2016
"The Interaction between Violacein Producing Bacteria and <i>Metarhizium anisopliae</i> F52"	
Alessia Zambrano	2016
"Examination of violacein-producing <i>Janthinobacterium</i> species' biofilm structure"	
Alexander Page	2015
"The Antibacterial Activity of Tryptophan-derived Pigments Violacein and Deoxychromoviridans on Four Common Bacterial Strains"	
Abby Soussan	2015
"Investigation of <i>Batrachochytrium dendrobatidis</i> Zoospore Movement in Response to Violacein-Producing Bacteria"	
Georgia Doing	2015
"Machine Learning on Images of a Microbial Mutant Library" (Joint project with Computer Science Program)	
Mildred Kissai (Joint Project with Chemistry Program)	2015
Kody Chen	2015
"Synthesis and Assays of Potential Anti-Cancer Ruthenium-Ferrocene Compounds" (Joint project with Chemistry Program)	
Francesca Di Rienzo	2014
"Design and development of a chitin-based method for <i>Vibrio cholerae</i> filtration"	
Molly North	2014
"Transposon based analysis of violacein production in <i>Janthinobacterium lividum</i> "	
Neena Marano	2014
"Characterization of biofilm production in <i>Janthinobacterium lividum</i> "	
Julia Les	2013
"Biofilm production and swarming motility of <i>Pseudomonas putida</i> in the presence of sub-inhibitory concentrations of the antibiotic chloramphenicol"	

Adenike Akapo “Do soil microbes inhibit the growth of oral microbes? A natural antibiotic treatment for dental overgrowth”	2013
Raed Al-Abbasee “Evidence for the presence of colonization factor GlcNAc binding protein A in <i>Vibrio cholerae</i> O1 El Tor biotype variant”	2013
Perry Anderson “Carbon source effect on violacein production [in] Hudson Valley aquatic microbial isolates”	2013
Alexia Downs “Colonization and conjugation in <i>Vibrio cholerae</i> : the possible link between the GbpA attachment factor and the presence of IncA/C multidrug resistance plasmids”	2013
Margo Finn “An Investigation of the Molecular Mechanism of Quorum Sensing in <i>Janthinobacterium lividum</i> ”	2013
Lena James “Effects of chitin on conjugation frequencies of the multi-drug resistant plasmid IncA/C from donor <i>Aeromonas salmonicida</i> AS03 to recipient <i>Vibrio cholerae</i> BAA-2163 (Haitian epidemic isolate)”	2013
Erin Smith “The effects of violacein-producing bacterial strains on <i>Batrachochytrium dendrobatidis</i> using a novel chytrid-killing assay”	2013
Sara Yilmaz “Acquiring multi-drug resistance in aquatic environments: the role of chitin in conjugation frequencies of the IncA/C plasmid between <i>Aeromonas salmonicida</i> subs. <i>salmonicida</i> AS03 and <i>Vibrio cholerae</i> MQ1795 (Bangladeshi isolate)”	2013
Liza Miller “Survey of vernal pools in the Hudson Valley yields bacterial isolates which inhibit the amphibian pathogen <i>Batrachochytrium dendrobatidis</i> ”	2012
Sining Leng “Characterization a mutation in the gene <i>IRE1</i> using a cooperative tumor model in <i>Drosophila</i> : role of the unfolded protein response in cancer”	2012
Jananie Ravi “Characterization of differences in biofilm formation and violacein production in environmental strains of <i>Janthinobacterium lividum</i> ”	2012
Emma Taylor Salmon “Examination of transfer frequency of a multi-drug resistant plasmid to <i>Vibrio cholerae</i> via conjugation”	2012
Veronica Steckler “Environmental detection of bacterial with anti-fungal activity against the amphibian pathogen <i>Batrachochytrium [sic] dendrobatidis</i> : a preliminary survey of <i>Janthinobacterium</i> in the Hudson Valley”	2012
Joshua Tanner “Interruption of <i>vioC</i> in a <i>Janthinobacterium sp.</i> mutant produces a green pigment structurally similar to chromoviridans”	2010
Alexandra Bettina “The preliminary identification and classification of <i>Janthinobacterium</i> hyper-violacein producing	2009

mutants as effective anti-microbial agents”

Jyoti Dev 2009
“Co-localization and interaction of a retroviral Gag protein with cellular caveolin-1 protein”

Will Wylie 2009
“Predation effectiveness and biofilm composition in *Bdellovibrio* and its prey”

INDEPENDENT RESEARCH

2009
Sining Leng
Yonqing Yuan
Jing Yang
Lauren Dorsey-Spiz

Liana Perry*
Emma Barnes*
*Participated in the
Microbial techniques
workshop

Jake Weissman
Imaani Easthausen

2010
Abishek Dev

2013
Yasho- Victoria Singh*

2017
Michael Kuckyr
Molly Woolery
Alexis Akingbade
Nadia Russell
Leah Berry-Sandlin

2011
Samuel Shapiro

Carmel Yaari*
Elisa Caffrey*

2018
Hannah Henry
Julia Gibson
Izabel Kickner
Mia Shushova
Nadia Russell

2012
Julia Les*
Molly North*
Jake Weissman*
Megan Snyder*
Erin Kelly*

Rebecca Landsbury*
Isabel Keddy-Hector*
Ian McElfresh*
Kexin (Muna) Ding*
Yangtsho Gyaltshen*
Deanna DePietro*
Ismaly Blanco*
Katherine Moccia
Griffin Burke
Emily Hoelzli

BARD SUMMER RESEARCH INSTITUTE (16)

2010
Alexandra Bettina

Molly North
Griffin Burke
Emily Hoelzli
Shailab Shrestha

Kelsey O’Brien
Raneem Jo’Beh (Al Quds)

2011
Joshua Tanner

2012
Lena James
H. Sara Yilmaz
*Ashley Beaulieu (St. Joseph’s
College, Standish, ME)*

2014
Georgia Doing
Yangtsho Gyaltshen

2016
Kelsey O’Brien
2017
Alexis Akingbade
Philippine Alba

2013

2015
Yegor Dukashin

HIGH SCHOOL SUMMER RESEARCH STUDENTS

2015
Joe Becker
Tyler Sheahan

2016
Emilio Pardi
Oscar Key
Christopher Bennicasa ‘21

2017

Madi Guski

MODERATION BOARD MEMBER (A=ADVISOR/RESPONSIBLE FOR REPORT) (97)

2009-2011

Joshua Tanner
Emma Taylor-Salmon
Jessica Philpott
Perry Anderson
Sining Leng (A)
Michelle Yuan
Gabriella Spitz
Laura Schubert
Abby Fuchsman
Miles Ingraham
Raed Al Abbasee
Becca Clinger
Kimara Ducasse
Brendan Beecher
Diana Crow (A)
Feifan Zheng

2011-2012

Julia Les
Sam Prince
Weiqing Wang (A)
Aliza Ray
Julie Hackett
Ismay Blanco (A)
Neena Marano (A)
Molly North (A)
Jasper Williams
Cameron Brenner
Abishek Dev
Francesca Di Rienzo (A)
Eva Shresthra
Alexander Sciurella (A)
Emma Troisi

2012-2013

Emily Hoelzli
Alexandra Smith
Megan Snyder
Taryn Kelly
Lily Mastrodimos
Elisa Caffrey

Erin Kelly
Dalia Najjar
Haya Dandis
Mildred Kissai
Shaya French
Kody Chen
Abby Soussan
Georgia Doing (Joint w/
Computer Science)

2013-2014

Lily Moll
Imaani Easthausen (A)
Noah Dickerman (A)
Alex Page (A)
Briana Flonc (A)
Kedian Keohan
Rock Deliquanti
John English (A)
Alessia Zambrano (A)
Leah Silverberg (A)
Clara Woolner
Deanna DePietro (A)
Rebecca Landsbury (A)
Katherine Moccia (A)
Andrea Szegedy-Maszak (A)
Sophie Zega (A)
Shailab Shrestha (A)
Genevieve Pierre
Kexin Ding
Alex Clarke

2014-2015

Bonnie Wilson-McNair (A)
Pola Kuhn (A)
Sydney Pindling
Javell Watson
Matthew Lampeter
Jonathan Von Reusner
Stefanie Walker
Victoria Palfini
Abiba Salahou

Kelsey O'Brien
Annie Kissel
Mengzhen Chen

2015-2016

Cassandra Savino (A)
Pearson Lau (A)
Lizzy Elliott (A)
Dynte' Moore (A)
Marisol Dothard
Nicholas George (A)
Nick Kifyak
Zavontae Holmes
Maia Weisenhaus
Ama Oppong (A)
Anna Richard (Psychology)
Carla Sanchez
Julie Roberts
Elizabeth Miller (A)
Chris Hulbert
Sarah Weiner (2 boards, Biology
and Human Rights) (A)
Phillippine Alba
Molly McQuillan
Molly Woolery
Lillian Brennesel (A)

2016-2017

Miroslav Skular (A)
Leah Santana
Hannah Henry (A)
Saleem Alhumaidi
Nora Levine
Rachael Mendoza
Xiofei Guo (A)
Kara Kuhn
Jarlene Morales
Michael Kuckyr (A)
Lily Schwartz (A)
Melissa Yost-Bido
Henry O'Donnell (A)

SENIOR PROJECT BOARD MEMBER

2010-2011

Anshul Zota
Sara Director
Olivia Nathanson
Stavros Vellisaris
(chemistry)

Sara Doble
Jing Yang
(chemistry)

2011-2012

Luke Henry

Abigail Fuchsman
Briana Franks
Deven Connolly
Jessica Philpott

2013-2014

Dalya Najjar
Xujin Liu
Alexander Sicurella
Abishek Dev
Jasper Williams
Ismay Blanco
Aliza Ray
Eva Shrestha

2014-2015

Dylan Dahan
Megan Snyder
Lily Moll
Alexandra Smith
Elisa Caffrey
Emily Hoelzli

Yangtsho Gyaltshen
Shaya French
Taryn Kelley
Imaani Easthausen

2015-2016

Clara Woolner
Quinnehtukqut McLamore
Genevieve St. Pierre
Madeline Hwee
Sophie Zega
Leia Carey
Fred Tangerman
Beckett Landsbury
Alexandra Clarke
Shailab Shrestha

2016-2017

Marisol Dothard
Haley Goss-Holmes
Emma Kelsick
Quanita Kendrick
Paul Kim
Pola Kuhn
Pearson Lau
Victoria Palfini
Naomi Weiser
Martie Stoudhoff
Jenny Chen

INTERNATIONAL BACCALAUREATE RESEARCH STUDENT

Madi Guski

Melissa Van Norden

“The Effect of Vanillin on Quorum Sensing in *J. lividum*” (Red Hook High School, Class of 2015)

BARD MAT MASTERS STUDENT

2011-2012

Melissa Bryant, Detecting fluorescence in GFP-expressing *Escherichia coli* as a safe method of tracking pathogen transmission.

FUNDING

ASM-LINK Fellowship to attend ABRCMS 2016 (awarded)	2016
ASM Judges Subsidy to attend ABRCMS 2016 (<i>declined to accept LINK Fellowship</i>)	2016
ASM Undergraduate Research Fellowship for Kelsey O’Brien	<i>2016, not funded</i>
Science-based Community Stewardship of the Saw Kill Watershed Participating faculty member	2015, Funded, \$44,779
New York State Water Resources Institute, “Using citizen science to map Hudson Valley waterways for violacein-producing microbes” Primary Investigator	2014, Funded, \$10,000
Contributor Sherman Fairchild Equipment Grant (in collaboration with Prof. Paul Cadden Zimansky and Prof. Christopher LaFratta)	2014, Funded, \$500,000; 4 years
HHMI Grant for Defining Science Literacy (contributor/steering committee)	2012, Funded, \$800,000; 4 years
Bard Summer Research Institute student stipends (13)	2009- present, \$40,000
HHMI SEA Change Grant	<i>2009 Not funded</i>
Beckman (Contributor)	<i>2009, 2011 Not funded</i>

MRI (for DNA sequencer); contributor 2009 *Not funded*

SERVICE- COLLEGE WIDE

Faculty In Residence 2017-present

Panelist for Women in Science, Mathematics and Technology Panel April, 2016

Member of Bard High School Early College Steering Committee 2015- present
Charged with establishing communication between BHSEC campuses, Simons Rock and the Bard Annandale campus, to improve curricular structure, ease transfer of credits between campuses, and facilitating conversations between programs.

Mentor for Bringing Theory to Practice Program 2016
Serve as a faculty mentor for student peer mentors and mentees to help provide clear guidance and support for improving methods of organization, study skills, and confidence in the STEM fields. Give dinner seminars on selected topics for program participants.

Family Weekend Sample Class Session 2017
BIO158 – Case Studies in Medical Biology Lab Experience

“Distilling Information from the Ebola Crisis” 2015

BEOP Welcome Lecture for SM&C Division 2015-present
Organized and participated in a workshop to introduce BEOP and POSSE scholars to the Science, Mathematics and Computing Division, describing courses, providing sample syllabi, conducting a question and answer session and touring the building

Library, Bookstore and Computers committee 2013
(1 semester term for sabbatical replacement)

HHMI Grant for Defining Science Literacy: Steering Committee/Member 2012-present
Met as a group to prioritize goals for grant execution; work as a college wide group to establish a definition for scientific literacy at the undergraduate level; focused on designing courses and assessment of courses for attaining competency for the definition of scientific literacy. Attended workshops and retreats focused on course design, assessment design, and pedagogy.

Fellowships and Awards Committee 2012-2014; 2015-present
Evaluated applications for Watson Fellowship, Fulbright Fellowships; Interviewed potential candidates for fellowships and awards.

Facilitator for Language and Thinking First Year Orientation program 2012

Lifetime Learning Institute Lecture 2012, 2014
Presented lectures with Professor Emily McLaughlin on the mechanisms of antibiotic resistance.

Faculty Fellow 2012-2014
Coordinated academic and social events for assigned cluster of campus residences.

Student Affairs Committee/ Student Judiciary Board 2011
(1 semester term for sabbatical replacement)

Center for Faculty Curricular Development work (CFCD) 2010-2016
Served as a member of the steering committee (2010-2016) to coordinate schedule of talks and workshops for academic year. Presented a number workshops including, but not limited to:
• *Getting the most out of student presentations (co-presented with Professor Deirdre D’Albertis)*

- *Rubrics and being the most effective teacher you can be (co-presented with Professor Daniel Berthold)*
- *Beginning the new semester: the first 30 minutes (co-presented with Professor Kristin Scheible)*
- *Advising Senior Projects (co-presented with Associate Dean Susan Merriam)*
- *Responding to student work (co-presented with Professor Phil Pardi)*
- *Teaching Close Reading in the science and humanities (co-presented with Professor Thomas Bartscherer and Professor Phil Pardi)*
- *Apps for the Classroom*

SERVICE- PROGRAM/DIVISION WIDE

Faculty Liaison for Bard College Membership in New York Academy of Science Science Alliance Program 2012-2016

Selection committee for the Bard Rockefeller Semester of Science (BRSS) 2011-present
Interviewed and selected students to participate in this competitive program at The Rockefeller University; Interviewed post-doctoral candidates interested in teaching 1 semester courses at the NYC campus for BRSS students.

Distinguished Science Scholar Selection Committee 2011-2014
Charged with selection of summer scholarship recipients and DSS continuing awards from undergraduate candidate pool.

Co-coordinator of Biology Program Seminar Series (BIO208) 2011-2012
Helped to solicit seminar speakers, prepare assessment materials, introduce speakers

Search Committees
Tenure Track search for Developmental/Physiologist in Biology Program 2015-2016
(Search Unsuccessful- one offer made and turned down)
Visiting Assistant Professor, Biology (Hired- Emily Pollina) Spring 2015
Visiting Assistant Professor Biology Program (Kristen Hultgren) 2014
Tenure Track Search Psychology Program, (2 positions- Amy Winecoff; 2nd search failed) 2014

SERVICE- COMMUNITY OUTREACH

Outreach visits for Violacein Producing Microbes Project 2015-present
Visit local classrooms, teach about project background and protocols.
Students collect water, plate it in the classroom, and deliver to the lab for further analysis
Red Hook High School (Red Hook, NY), Linden Avenue Middle School (Red Hook, NY)
Roosevelt High School (Hyde Park, NY), Holy Trinity School (Poughkeepsie, NY)

Panelist SUNY Ulster Career Fair 2012-2014, 2016

Tivoli Library Talk: “What is Citizen Science?”

Judge at local Red Hook and Rhinebeck Science Fairs (elementary and middle school) 2011- present

Science Outreach Seminars
Designed and presented science outreach seminars to a wide variety of groups, on and off campus. Purpose of these seminars is to introduce biology and biological inquiry in a manner that allows participants to both engage with, and enjoy a scientific experience. Science seminars include:

Mill Road Science night at Red Hook’s Mill Road Elementary School (Part of the Citizen Science Program)
>200 students aged K-5th grade visited various age appropriate stations of activities, instructed by Citizen Science Faculty and Citizen Science students.

BHSEC Workshop

Presented DNA extraction activity, as well as various nature of scientific inquiry exercises for incoming 9th grade students of BHSEC Manhattan and BHSEC Queens. Workshops served approximately 50 students per summer, over two 1.5 hour workshops

8th Grade Science Days

Over 2 days, taught 10 1 hour sessions of approximately 15 students per session, teaching about DNA extraction

Alumni Weekend at Bard College

DNA extraction seminar (2 classes of approximately 20 students, range of ages)

Family Weekend at Bard College

DNA extraction seminar (2 classes of approximately 20 students, range of ages)

8th Grade Bailey Middle School, Kingston NY

Developed workshop for 8th grade students that incorporated a previous DNA extraction exercise with a more complex genetics and molecular biology follow up activity. Prepared material following lecture for high school faculty to use as a follow up lesson.

Science Outreach Days – Citizen Science

Trained Bard First Year students enrolled in Citizen Science to be teach DNA extraction lessons to 8th grade students from local school districts. Over 3 days, taught and supervised teaching of 15 1 hour sessions of approximately 15 students per session, teaching about DNA extraction.

Build, Learn, Play! (BLP!) Summer Science Program

Conducted a 2-day biology workshop with local middle school students centered around local microbiology. Workshops were conducted on site of the Bard Farm, as well as in the laboratory of the Reem and Kayden Center for Science and Computation.

8th Grade Science visits

Designed microbial fuel cell activity for local 8th grade students to built fuel cells at Bard, and bring completed fuel cells back to classroom for use. Constructed all materials for handouts and training, trained students to teach activity, helped supervise activity. (resulted in peer review publication, Jude and Jude, 2015)

SERVICE- SCIENCE COMMUNITY

External Review for Tenure and Promotion

2016

Journal Reviewer (Ad Hoc)

Molecular Microbiology
Infection and Immunity

Invited Book Review

ASM- Laboratory Textbook
Oxford Books- Prospectus for 3rd Edition of Writing in the Biological Sciences

Invited Journal Review

Cellular and Molecular Biology
International Journal of Medical Microbiology
Journal of Clinical Microbiology
Journal of Microbiology Education (JMBE)

Invited Grant Review

National Science Foundation
NH INBRE

2011

2015

NSF Graduate Research Fellowship Program (GRFP) Review Panel

2014-2015

Leopold Center Grant Review 2014

Journal of Microbiological Education

Reviewing Board Member

2012-present

Nomination committee

Educational awards of the American Society of Microbiology

2014-2016

PRESS

“Citizen Science: Bard Prepares for the 21st Century” Sanford Simon, The Bardian

“An Infusion of Science Where the Arts Reign” Lisa Foderaro
The New York Times January 21st, 2011

“Bringing Science To the Citizens” Celia Arnaud
Chemical and Engineering News February 7th, 2011