

AISLING S. DUGAN

Curriculum Vitae

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<https://vivo.brown.edu/display/adugan>

EDUCATION/ TRAINING

- 2009-2010 **Postdoctoral Research Associate**
Tufts University, Boston, MA
Department of Microbiology, Mentor Ralph R. Isberg, Ph.D.
- 2003 - 2008 **Doctor of Philosophy in Biology and Medicine**
Brown University, Providence, RI
Pathobiology Graduate Program, Mentor: Walter J. Atwood, Ph.D.
- 1996 - 2000 **Bachelor of Arts in Biological Science; Minor in Chemistry**
Smith College, Northampton, MA

FACULTY POSITIONS & TEACHING EXPERIENCE

- 2022 – present **Associate Teaching Professor** (formerly Senior Lecturer)
Biology Education, Dept. of Molecular Microbiology and Immunology
Brown University, Providence RI
- BIOL 0510 – Introductory Microbiology
 - BIOL 0530 – Principles of Immunology
 - BIO1945 – Outbreaks & Infections: Harnessing History and Preventing Future Epidemics
 - BIOL1950/1960–Independent Studies (3 students)
- Summer 2013-2025 **Instructor**
Summer@Brown Precollege Program, Brown University, Providence, RI
- Moral Medicine: Questions in Bioethics at the Cutting Edge
 - Psychopathology: Investigating the Biology and Psychology of Mental Illness
 - Bacteriology: The Good, the Bad, the Deadly with laboratory
 - The Great Diseases: Cancer, Heart Disease, Diabetes, and Epidemics
 - Brain and Behavior
 - Germs in the New with laboratory
- 2021 **Lecturer**
Biology Education, Dept. of Molecular Microbiology and Immunology
Brown University, Providence RI
- BIO0530 Principle of Immunology
- 2016 –2021 **Associate Professor**

Dept. of Biological and Physical Sciences, Assumption University,
Worcester, MA

- Special Topics: Infectious and Epidemic Diseases
- Immunology lecture and Laboratory (Community Service-Learning component)
- Microbiology lecture and laboratory
- Molecular and Cellular Biology Laboratory
- Concepts in Biology Laboratory
- Human Biology in Health and Disease Laboratory
- Honors research Mentor (5 students)
- Independent Study in Biology (2 research students)
- Internship (Faculty mentor for 2 off-campus internships)

2010-2016

Assistant Professor

Dept. of Natural Sciences, Assumption College, Worcester, MA

- Immunology lecture and Laboratory
- Microbiology lecture and Laboratory
- Concepts in Biology Laboratory
- Human Biology in Health and Disease lecture and Laboratory
- Guest Lecturer for Special Topics: Trees
- Honors Research Mentor (3 students)
- Independent Study in Biology (4 research students)
- Internship Mentor (Faculty mentor for 2 off-campus internships)
- Summer (10 weeks) undergraduate research projects (6 students)

2009-2010

**Postdoctoral TEACR (Training in Education and Critical Research Skills)
Fellow**

Institutional Research and Academic Career Development Award,
NIH/NIGMS, Tufts University

2009-2010

Curriculum Developer & Content Specialist

Tufts University, Boston, MA

Great Diseases: A Collaborative Approach to Real World Science in the
Classroom, NIH Research Education Grant (R25RR026012-01),

AWARDS

2025

Dean's Award for Excellence in Undergraduate Teaching, Advising and Mentoring in
the Biological Sciences, Brown University

2006

Charles Kuhn Graduate Award in Disease Pathogenesis, Pathobiology Graduate
Program, Brown University

RESEARCH EXPERIENCE

2022-present

Associate Teaching Professor

Biology Program and Molecular Microbiology & Immunology Dept.
Brown University, Providence, RI

Research Program: Designing educational practices that promote learning

Current IRB Approved Research Studies:

1. Evaluating the Rigor of Completion Credit Writing Assignment in Biology Courses
2. Assessing the Effectiveness of Archival Research in a Biology Classroom
3. The impact on first-year conference sections on sense of belonging and performance in a large enrollment STEM course
4. Equitable Learning Inquiry Project: Investigating the Impacts of Metacognitive Development in Foundational Courses

2016 – 2021

Associate Professor

Dept. of Biological and Physical Sciences,
Assumption University, Worcester, MA
Research program: Pathogen and host interactions

2016 - 2017

Visiting Research Professor – Sabbatical

Dept. of Molecular Biology, Cell Biology, and Biochemistry,
Brown University, Laboratory of Walter J. Atwood, PhD
Research project: Role of exosomes in human JC polyomavirus infection

2010 –2016

Assistant Professor

Dept. of Natural Sciences, Assumption College, Worcester, MA
Research program: BK virus and human host cell interactions

2009 – 2010

Howard Hughes Postdoctoral Research Associate

Dept. of Microbiology, Tufts University, Laboratory of Ralph R. Isberg, Ph.D.
Research project: The role of host cell kinases and phosphatases in *Legionella pneumophila* infection.

2007 – 2008

Postdoctoral Research Associate

Dept. of Molecular Biology, Cell Biology, and Biochemistry,
Brown University, Laboratory of Walter J. Atwood, PhD
Research project: The effect of innate antimicrobial peptides on polyomavirus infection.

2003 – 2007

Graduate Student

Pathobiology Graduate Program, Brown University, Laboratory of Walter J. Atwood, Ph.D.
Research project: Interactions between the human pathogen, BK Virus, and sialic acid receptors of kidney host cells.

2001- 2003

Research Assistant and Laboratory Manager

Dept. of Pathology, Beth Israel Deaconess Medical Center, Boston, MA
Laboratory of Arthur Mercurio, Ph.D.
Research project: siRNA knockdown of integrins and Rho GTPases to study the effect of these proteins on breast cancer cells *in vitro* and *in vivo*.

2000 - 2001

Antibody Research Associate

BioSource International, Hopkinton, MA
Duties: Conjugated peptides, affinity purified antibodies from serum, conducted ELISAs to assay antibody titer.

PUBLICATIONS

Note about publications below:

- First author position is assigned to the researcher who contributed the most intellectually and experimentally toward the publication of the work. This author organized and wrote most of

the publication.

- Middle authors contributed some time, provided intellectual interpretation, conducted at least one experiment (and often many), and either wrote some sections of the publication and/or provided feedback during publication drafts. The contributions are organized such that second author contributed more than third author, the third author contributed more than fourth author, etc.
- Last author (corresponding author) is the head of the lab who mentors researchers, reviews manuscript, and funds most of the project.

1. **Dugan AS**, Monteiro K, Achilli T. Professionalization of an undergraduate teaching assistant Program to increase participation and build career skills. *Journal of Microbiology and Biology Education*. 2025. 26(3). e0003825.
Contribution: Major contributor of the idea, organization, writing, and revisions of this paper
2. Hershkovitz D, Chem EJ, Ensminger AW, **Dugan AS**, Conway KT, Joyce AC, Segal G, Isberg RR. Genetic evidence for a regulated cysteine protease catalytic triad in LegA7, a *Legionella pneumophila* protein that impinges on a stress response pathway. *mSphere*. 2024.
DOI: <https://doi.org/10.1128/msphere.00222-24>.
Contribution: Designed a genetic tool (cDNA library) for identifying the function of specific bacterial proteins and review of the paper before submission
3. Love-Morris J, Gee GV, O'Hara BA, Assetta B, Armstead B, **Dugan AS**, Haley SA, Atwood WJ. ... Biogenesis of JC polyomavirus associated extracellular vesicles. *Journal of Extracellular Biology*. 2022. 1(5): e43.
Contribution: Created a special cell line that lacks a critical enzyme using Crisp that was useful in this paper and reviewed of the paper before submission
4. Love-Morris J, Gee GV, O'Hara BA, Assetta B, Atkinson AL, **Dugan AS**, Haley SA, Atwood WJ. JC polyomavirus uses extracellular vesicles to infect target cells. *mBio*. 2019. 10 (2): e00379-19.
*editor's pick
Contribution: Provided data for multiple experiments, designed an experimental system and protocols that were useful throughout the paper, intellectual contribution, interpretation of results, wrote some sections of the paper, and revision of manuscript before publication
5. Stroh LJ, Gee GV, Blaum BS, **Dugan AS**, Feltkamp MCW, Atwood WJ. Trichodysplasia Spinulosa-associated polyomavirus employs a displayed binding site on VP1 to engage sialylated glycolipids. *Plos Pathogen*. 2015. 11 (8): e1005112.
Contribution: Designed experimental system that was useful in this paper and revision of manuscript before publication
6. Asrat S, **Dugan AS**, Isberg RR. The frustrated host response to *Legionella pneumophila* is bypassed by MyD88-dependent translation of pro-inflammatory cytokines. *Plos Pathogen*. 2014. 10 (7): e1004229.
Contribution: Data from multiple experiments, intellectual contribution, interpretation of results, wrote of some sections of the paper, and revision of manuscript before publication
7. Bouley SJ, Maginnis MS, Derdowski A, Gee GV, O'Hara BA, Nelson CD, Bara AM, Atwood WJ, **Dugan AS**. Host cell autophagy promotes BK virus infection. *Virology*. 2014. 456-457: 87-95.
Corresponding author of this manuscript. Underlined authors were my undergraduate students
8. Barry KC, Fontana MF, Portman JL, **Dugan AS**, Vance RE. IL-1 α Signaling Initiates the Inflammatory Response to Virulent *Legionella pneumophila* *In Vivo*. *Journal of Immunology*. 2013. 190(12):6329-39.

Contribution: Intellectual contribution and revision of manuscript before publication

9. Jordan JA, Manley K, **Dugan AS**, O'Hara BA, Atwood WJ. Transcriptional regulation of BK virus by nuclear factor of activated T cells. *Journal of Virology*. 2010. 84 (4): 1722-30.
Contribution: Data for one figure of this paper, intellectual contribution, interpretation of results, wrote one part within the results and methods sections of the paper, and revision of manuscript before publication
10. Li Z, **Dugan AS**, Bloomfield G, Skelton J, Ivens A, Losick V, Isberg RR. The amoebal MAP kinase response to *Legionella pneumophila* is regulated by DupA. *Cell Host & Microbe*. 2009. 6 (3): 253-267.
Contribution: Data from multiple experiments, intellectual contribution, interpretation of results, wrote some sections of the paper, and revision of manuscript before publication
11. Gasparovic ML, Maginnis MS, O'Hara BA, **Dugan AS**, Atwood WJ. Modulation of PML protein expression regulates JCV infection. *Virology*. 2009. 390 (2): 279-288.
Contribution: Assistance with experiments, intellectual feedback, and revision of manuscript before publication
12. **Dugan AS**, Maginnis MS, Jordan JA, Gasparovic ML, Manley K, Page R, Williams G, Porter E, O'Hara BA, Atwood WJ. Human alpha-defensins inhibit BK Virus by aggregating virions and blocking binding to host cells. *Journal of Biological Chemistry*. 2008. 283 (45): 31125-31132.
Major contributor of publication
13. **Dugan AS**, Gasparovic ML, Atwood WJ. Direct correlation between sialic acid binding and infection of cells by two human polyomaviruses (JCV and BKV). *Journal of Virology*. 2008. 82 (5): 2560-2564.
Major contributor of publication
14. **Dugan AS**, Gasparovic ML, Tsomaia N, Mierke DF, O'Hara BA, Manley K, Atwood WJ. Identification of amino acid residues in BK virus VP1 that are critical for viability and growth. *Journal of Virology*. 2007. 81 (21): 11798-11808.
Major contributor of publication
15. **Dugan AS**, Eash S, Atwood WJ. Update on BK Virus entry and intracellular trafficking. *Transplant Infectious Disease*. 2006. 8 (2): 62-67.
Major contributor of publication
16. Gee GV, **Dugan AS**, Tsomaia N, Mierke DF, Atwood WJ. The role of sialic acid in human polyomavirus infections. *Glycoconjugate Journal*. 2006. 23 (1-2): 19-26.
Contribution: Review of literature, intellectual interpretation, wrote a major section of this paper, and revision of manuscript before publication
17. Lipscomb EA, Simpson KJ, Lyle SR, Ring JE, **Dugan AS**, Mercurio AM. The alpha6beta4 integrin maintains the survival of human breast carcinoma cells in vivo. *Cancer Research*. 2005. 65 (23): 10970-10976.
Contribution: Data from multiple experiments, intellectual contribution, interpretation of results, and revision of manuscript before publication
18. **Dugan AS**, Eash S, Atwood W. An N-linked glycoprotein with alpha(2,3)-linked sialic acid is a receptor for BK virus. *Journal of Virology*. 2005. 79 (22): 14442-14445.
Major contributor of publication

19. Elphick GF, Querbes W, Jordan JA, Gee GV, Eash S, Manley K, **Dugan A**, Stanifer M, Bhatnagar A, Kroeze W, Roth BL, Atwood WJ. The human polyomavirus, JCV, uses serotonin receptors to infect cells. *Science*. 2004. 306 (5700): 1380-1383.

Contribution: Data from one experiment, intellectual feedback, and revision of manuscript before publication

20. Simpson KJ, **Dugan AS**, Mercurio AM. Functional analysis of the contribution of RhoA and RhoC GTPases to invasive breast carcinoma. *Cancer Research*. 2004. 64 (23): 8694-8701.

Contribution: Data from multiple experiments and revision of manuscript before publication

21. Lipscomb EA, **Dugan AS**, Rabinovitz I, Mercurio AM. Use of RNA interference to inhibit integrin (alpha6beta4)-mediated invasion and migration of breast carcinoma cells. *Clinical & Experimental Metastasis*. 2003. 20 (6): 569-576.

Contribution: Data from multiple experiments, intellectual feedback, and revision of manuscript before publication

(Underlined name indicated an undergraduate co-author)

RESEARCH TALKS, PEDAGOGY PRESENTATIONS, & WORKSHOP FACILITATION

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|----------------|--|
| November 2025 | Conference Workshop: <i>Navigating the Non-Tenure Track in Biology: Insights, Strategies, and Shared Experiences</i> , American Society of Microbiology Conference for Undergraduate Educators (ASMCUE), San Antonio |
| November 2024 | Roundtable Facilitator: <i>I don't want to be an AI plagiarism detector! Addressing Biology Teaching Challenges in the New AI Era</i>
ASMCUE, Pittsburgh, PA |
| November 2024 | <i>Beyond the Bench: Integrating Bioethical Topics in Microbiology and Immunology Courses</i> , ASMCUE, Pittsburgh, PA |
| November 2023 | <i>Anti-Racist Teaching: Concept & Practice in Microbiology</i> , ASMCUE, Phoenix, AZ |
| June 2023 | <i>Practicing Antiracism in Biology Classrooms and Beyond</i> , New England Biology Association for Two-Year Colleges Conference, Community College of Rhode Island, Lincoln, RI |
| September 2022 | <i>Innate Immunity to Viruses & Adaptive Immunity to Viruses</i> guest lectures
BIO1560: Virology, Brown University |
| April 2021 | <i>Contact Tracing used in Infectious Disease Course</i> , Community Service Learning Celebration and Faculty Workshop, Assumption University |
| June 2018 | <i>Out of the Classroom and into the Community: Integrating a Service Learning Project to an Immunology course</i> , Project Kaleidoscope (PKAL) Regional Summer Meeting, Salem State University, Salem, MA |
| May 2018 | <i>Integrating a Community Service Learning Component into BIO410: Immunology</i> , Community Service Learning Celebration and Faculty Workshop, Assumption College |
| Nov. 2017 | <i>A Virus in Cell Clothing: Mapping Viral Infection in Human Brain Cells</i> . Assumption College, Student Science Club Seminar Series, Worcester, MA |

- Sept. 2017 *A Virus in Cell Clothing*
Assumption College, Provost office sponsored “Lunch and Learn” seminar series, Worcester, MA
- Sept. 2017 *A Virus in Cell Clothing.*
Rhode Island College, Biology Dept. Colloquium Seminar Series, Providence, RI
- June 2017 *Extracellular Vesicle Involvement in JC Polyomavirus Infection*
ASM (American Society for Microbiology) Microbe Conference 2017, New Orleans, LA
- July 2014 *Host Cell Autophagy Promotes BK Virus Infection.*
XIVth International Union of Microbial Sciences (IUMS), Montreal, Canada
- April 2014 *The Ins and Outs of BK Virus Infection.*
Bryant University, Dept. of Science and Technology Seminar Series, Smithfield, RI
- Nov. 2012 *Virus vs. Host: Lessons Learned from BK Virus Infection,*
Hamilton College, Biology Dept. Seminar Series, Clinton, NY
- Nov. 2011 *How Human Defensins Protect against Viral Infection.*
Rhode Island College, Biology Dept. Seminar Series, Providence, RI
- June 2011 *Alpha-defensin 5, HD5, Inhibits BK Virus Infection.*
Novartis Institutes for Biomedical Research, Cambridge, MA
- April 2011 *The Immune System Strikes Back: Human Defensins Protect against Viral Infection.*
Assumption College, Natural Science Dept. Seminar Series, Worcester, MA
- July 2008 *Alpha-defensins, HNP-1 and HD5, Inhibit Primate Polyomavirus Infection of Host Cells.*
American Society for Virology, Ithaca, NY
- Sept. 2007 *The Role of Charged Amino Acids in VPI in BK Virus Lifecycle.*
4th International Conference on Polyomavirus and Human Disease, Barcelona, Spain
- Aug. 2007 *Identification of Amino Acid Residues in BK Virus VPI Critical for Viability and Growth.*
Brown University, Annual Retreat for Pathobiology Graduate Program, Bristol, RI
- July 2006 *BK Virus Interaction with Sialic Acid Receptors on Host Cells.*
American Society for Virology, Madison, WI
- Sept. 2005 *An N-linked Glycoprotein with $\alpha(2,3)$ -linked Sialic Acid is a Receptor for BK Virus.*
3rd International Conference on Polyomavirus and Human Disease, Providence, RI

CONFERENCE ABSTRACTS - POSTER PRESENTATIONS

- November 2025 *Beyond the Grade: Engaging Students through Completion Credit Bioethics Writing.*
ASMCUE, San Antonio, TX

June 2025

Evaluating Student Engagement using Completion Credit Written Assignments in Microbiology and Immunology Undergraduate Courses. The Grading Conference

June 2021

Tracking an Outbreak: A Historic Biography & Contact Tracing Training to Study Infectious Disease, American Society for Microbiology Conference for Undergraduate Educators, Online

November 2019

Using the Kitchen Sponge as a Pedagogical Tool to Investigate Bacterial Abundance, Composition, and Resistance, American Society Microbiology 54th Annual Regional I Meeting, Randolph, MA

* Student authors - Sydney Knoll & Nicholina Allain

January 2019

The Microbial Community of Kitchen Sponges: Experimental Study Investigating Bacterial Number, Composition, and Resistance, Pioneer Valley Microbe Symposium, Amherst, MA * Student presenters - Sydney Knoll & Nicholina Allain

May 2017

Exosome Involvement in JC Polyomavirus Infection

6th International Society for Extracellular Vesicles Conference, Toronto, Canada

April 2017

Exosome Involvement in JC Polyomavirus Infection

2nd Northeast Association for Clinical Microbiology and Infectious Disease & Northeast Branch of American Society for Microbiology (NACMID-NEB-ASM) Conference, Wakefield, MA

May 2014

Host Cell Autophagy Promotes BK virus Infection

American Society for Microbiology 114th General Meeting, Boston, MA

Oct. 2013

RAW264.7 Cellular Response to Dermacoccal and Staphylococcal Infection

American Society for Microbiology: 48th Annual Regional Meeting, Storrs, CT

* Student presenters - Anne (Maggie) Bara & Hieu Nguyen

June 2012

The Role of Autophagy in BK Virus Infection of Host Cells

American Society for Microbiology 112th General Meeting, San Francisco, CA

Faculty mentor for student project:

* Student presenter - Stephanie Bouley

Received Outstanding Student Poster Award

April 2012

The Role of Autophagy in BK Virus Infection of Host Cells

Council of Undergraduate Research Posters on the Hill, Washington, D.C.

* Student presenter - Stephanie Bouley (76 of 850 abstracts accepted)

Oct. 2011

The Role of Autophagy in BK virus Infection.

American Society Microbiology 46th Annual Regional I Meeting, Brockton, MA

Feb. 2006

BK Virus Interaction with Sialic Acid on Receptors of Host Cells

Keystone Symposium: Cell Biology of Virus Entry, Replication and Pathogenesis, Santa Fe, NM

CAREER PRESENTATIONS & COMMUNITY INVOLVEMENT

April 2024

Presenter, *Microbiology: A Career with Many Opportunities,* Staff of Asclepius Career Series

Aisling S. Dugan
Fall 2020

Curriculum Vitae

Faculty Mentor, *Exploring Wellness*, Interest Circle, semester-long program, Living Learning Center, Assumption University

April 2020 **Panelist**, Assumption College of Liberal Arts and Sciences (CLAS) Dinner and Discussion: Developing a mission statement for CLAS

2011-2019 **Organizer & Presenter**, *How to get a Summer Research Internship!*, Natural Science Dept. Seminar Series, Assumption College

May 2017 **Panelist**, Career Opportunities in the Sciences, Worcester State University

Aug. 2016 **Presenter**, Teaching at a Primarily Undergraduate Institute: Career Paths after Graduate School, Brown University, Office of Graduate and Postdoctoral Studies

Feb. 2015 **Faculty Participant**, Exploring Majors Fair, Assumption College

April 2012 **Presenter**, *Landing the Perfect Internship*, Student organized event in residential hall, Assumption College

Feb. 2011, '13, '14 **Presenter**, *How BK Virus Infects Host Cells*, Faculty Showcase: Assumption College, Natural Science Dept. Seminar Series, Worcester, MA. (Highlighting faculty research to recruit students for summer research projects.)

Oct. 2011 **Presenter**, *How to reduce stress!*, Student organized event in residential hall, Assumption College

May 2011 **Panelist**, Careers at a Liberal Arts College, Tufts University, Boston, MA

March 2008 **Presenter**, Microbiology and Disease Workshop for Accelerated Learning Activities Program (ALAP), Warwick, RI

PROFESSIONAL DEVELOPMENT, LEARNING COMMUNITIES & TEACHING ENRICHMENT

2025-2026 **Equity Learning Inquiry Program**, Sheridan Center, Brown University

Summer 2025 **ASMCUE Summer Series**. 6-part online series

Spring 2025 **Biologists and Graph Interpretation (BioGraphI) Faculty Mentoring Network**
9-part workshop series on integrating data literacy and graph interpretation while fostering diversity in undergraduate biology classrooms

Fall 2024 **Learn How to Improve Your Classroom Teaching Through Universal Design for Learning**, ASM, 4-part seminar series with 3 interactive workshop sessions

Summer 2024 **Getting Started in Biology Education Research**
ASM and SABER (Society for the Advancement of Biology Education Research)
7-part seminar series with 5 interactive workshop sessions

June 2024 **The Grading Conference 2024** – 3-day online conference

Spring 2024 **Decolonizing STEM Reading Group**, Brown University

- February 2024 **Innovative Educators Virtual Summit** – 2-day online conference
- 2023-2024 **Faculty Learning Community (FLC) Cohort**
HHMI and SEAS Inclusive Teaching MOOC to develop, practice, and apply evidence-based inclusive approaches for more effective teaching and learning
- Summer 2023 **Microbiology Learning & Teaching Committee: Assessment in Biology**
SABER and ASM. 7-part seminar series with 5 interactive workshop sessions
- Spring 2023 **Seminar for Transformation Around Anti-Racist Teaching (START) Program**,
Brown University
- 2023 **Journal of Microbiology Biology Education Live!** – ASM online community –
Regular attendee
- 2023 **MicroEdu Live!** ASM online community – Regular attendee
- 2022 - present **STEM Ed Friday**, Brown University – Regular attendee
- 2022- present **Large Class SIG**, Brown University – Regular attendee
- 2022-2025 [Teaching Seminars/Workshops](#) (Click hyperlink for details)
- 2022 **American Society for Microbiology Conference for Undergraduates (ASM-CUE)**, Virtual conference
- August 2020 **Online Teaching Training**, D’Amour Center for Teaching Excellence,
Assumption College, Worcester, MA
- 2020 **Reflections on Race**, Cross-Cultural Center, Assumption University, Worcester, MA
- 2019-2020 **Course Innovation Academy**, D’Amour Center for Teaching Excellence
Assumption College, Worcester, MA
- August 2019 **First-Year Dinner Conversation Workshop**, Assumption College, Worcester, MA
- May 2019 **Educational Equity & Teacher Diversity Policy Forum**
Annenburg Institute, Brown University, Providence, RI
- May 2019 **Invitation to Learning: Emotions, Inclusivity, and Community Symposium**
Assumption College, Worcester, MA
- June 2018 **Project Kaleidoscope (PKAL) Regional Summer Meeting**
Salem State University, Salem, MA
- 2017-2019 **D’Amour Center for Teaching Excellence Workshops**
Assumption College, Worcester, MA
Learning from Teaching Online (2020)
Student Perspectives on Teaching (2019)
Innovations in High Education: Teaching Distracted Minds (2019)
Meditation and Mindfulness (2019)
Making your Scholarship Public (2018)

- May 2017, '18, '19 **Community Service Learning Faculty Workshop**
Assumption College
- May 2014 **Getting Started as a Microbiologist at a Primarily Undergraduate Institution (PUI) Workshop**
American Society for Microbiology 114th General Meeting, Boston, MA
- April 2014 **Teaching and Technology Mini-Conference**
D'Amour Center for Teaching Excellence and Information Technology
Assumption College, Worcester, MA
- Jan. 2014 **Designing Scientific Teaching Tools for Biochemistry and Molecular Biology (BMB) Education**
American Society for Biochemistry and Molecular Biology, Simmons College,
Boston, MA
- Oct. 2010 **Microbial Genome Annotation Regional Training (IMG-ACT)**
Department of Energy Joint Genome Institute, Worcester State University, Worcester,
MA
- July 2010 **Graduate Institute for Teaching (GIFT)**
Summer 4-week Intensive Workshop on Teaching, Tufts University, Medford, MA
- April 2010 **Process Oriented Guided Inquiry Learning (POGIL) Training**
National Science Foundation (NSF) funded, Newport, RI
- 2005-2008 **Teaching Certificate I and III Program**
Sheridan Center for Teaching and Learning, Brown University

CONSULTANT WORK

- 2023 **Expert Witness**, Bristows LLP. London, England

PRESS / MEDIA

- News from Brown website. July 13, 2023 [“Opening up Horizons of Curiosity:” PreCollege Programs Offer a Taste of the Brown Experience.](#) Interviewed for this article
- The Brown Daily Herald. January 26, 2023 [“Students, faculty react to a return to in-person midterms.”](#) Interviewed for this article.
- Lang, Jim. *[Distraction](#)*. Basic Books. 2020. A few of my teaching practices are shared in this book.
- Boston 25 News. [“Assumption Students get Trained as Contact Tracers as Class Incorporate Pandemic Skills.”](#) March 16, 2021
- Spectrum News 1. [“Assumption University Students Training as Contact Tracers to Help During Pandemic.”](#) February 18, 2021

- WMPR FM NPR radio. [“Student spend spring semester studying to be contact tracers.”](#) February 18, 2021
- Assumption University News and Events. [“Assumption Students Training as Contact Tracers to Assist Worcester in Pandemic Response.”](#) February 16, 2021
- Worcester Business Journal [“Assumption Student Training to Conduct Contact Tracing.”](#) February 17, 2021
- Worcester Telegram and Gazette. [College Town: Assumption Students Training to Become Contact Tracers.”](#) February 17, 2021
- Mass Live [“Assumption University students spending spring training to be COVID Contact Tracers”](#) February 16, 2021
- Spectrum News 1. [“Making Sense of New CDC Study on COVID-19.”](#) April 14, 2020

FELLOWSHIPS AND GRANTS

2025	UTRA Student funding, Brown University Faculty Mentor to Kaitlin Dang ‘26
2022	Lab Media Co-Designer Fellowship, Brown University Faculty Mentor to Undergraduate (Student Claire Brown awarded \$1475)
2019	Faculty Development Grant, Assumption College Title: You are What You Eat: Diet Affects Stable Isotope Ratios in Hair (Total Awarded \$3500)
2018-2020	Course Load Reduction Grant, Assumption College Title: Investigating the Microbial World of the Household Sponge (Total Award: teaching course reduction in two courses over two years)
2016	Faculty Development Grant, Assumption College Title: Secrets to Infection: Investigating how cell cycle influence susceptibility to BK virus Infection (Total Awarded \$3000)
2014	Faculty Development Grant, Assumption College Title: The role of cell cycle in BK virus infection of host Cells (Total Awarded \$4000)
2013	Honors Program Research Fellowship , Assumption College Faculty mentor to Hieu Nguyen ‘15 Title: Human immune response to bacterial Infection (Total awarded \$7000)
2011-2012	American Society for Microbiology Undergraduate Summer Fellowship Faculty mentor to Stephanie Bouley ‘12

- Title: Determining the role of host autophagy in BK virus infection at Brown University (Student awarded \$4000 plus travel to conference)
*39 of 69 applications were funded
- 2011 Honors Program Research Fellowship, Assumption College
Faculty mentor to Stephanie Bouley '12
Title: Determining the role of host autophagy in BK virus infection at Brown University (Total awarded \$7000)
- 2009-2010 NRSA Postdoctoral Fellowship Grant (F32AI084202-01),
National Institute of Allergy and Infectious Disease/NIH, Tufts University
Primary Investigator
Title: Dissecting the role of ERK and DUSP on *Legionella pneumophila* Infection
(Awarded ~\$65,000 plus benefits)
- 2009-2010 TEACR (Training in Education And Critical Research Skills) Fellowship,
Institutional Research and Academic Career Development Award, NIH/NIGMS,
Tufts University
Trainee
Title: Dissecting the Role of ERK and DUSP on *Legionella pneumophila* Infection
(Awarded full salary and training/workshops for 3 years, but because I received an NRSA grant I only accepted training)
- 2005-2007 GAANN Training Grant, Pathobiology Graduate Program, Brown University
Trainee
Title of Project: Dissecting BK virus receptor Interactions
(Awarded ~\$70,000 plus benefits)
- 2004-2006 Frederic Poole Gorham Biological Fellowship, Brown University
Trainee
Title of Project: Dissecting BK virus receptor Interactions
- Summer 1999 Praxis summer fellowship funded through Smith College
Dept. of Microbiology, University of Michigan
Undergraduate Intern
Title: Antibiotic resistance in *Enterococcus faecalis*
(Awarded \$2000)
- Summer 1998 Summer Internship Funding Program (SIFP) fellowship through Smith College
Dept. of Environmental Conservation
Undergraduate Intern
Title: Assessing wellness of fisheries in Central New York State
(Awarded \$2000)

MENTORED STUDENTS AND THEIR ACCOMPLISHMENTS

Honors Students / Independent Studies

- 2025 **Cameron Le '25**, Brown University
Capstone Project: Clinical Allergy & Atopy: Pathophysiology, Therapy, and Burden of Disease
- 2024 **Cagn Walker '24.5**, Brown University

- Capstone Project: Impact of chemical and physical stressors on *D. radiodurans*
- 2024 **Jeremy Kwon** '24, Brown University
 - Honor Thesis: Endogenous ROS Levels in Clinical Isolates of MRSA
 - Fulbright US - Korea Presidential STEM Initiative Award
- 2021 **Rebecca Chioniere** '22, Assumption University
 - Honors Thesis Proposal: Prion disease in animals and interspecies transmission
- 2021 **Lauren Jakobs** '22, Assumption University
 - Honors Thesis Proposal: The Leaky Pipeline of Women in Biological Science
- 2020-2021 **Evan Kessinger** '21, Assumption University
 - Honor Thesis: Investigating COVID-19 Disease
 - Current position: Manufacturing Associate, Bristol Myers Squibb, Greater Boston, MA
- 2020 **Nicole Bramlitt** '21, Assumption University
 - Honors Thesis: Using RAW264.7 cells as a model for bacterial phagocytosis
 - Current position: Medical Student, University of Central Florida College of Medicine, Orlando, FL
- 2018-2019 **Sydney Knoll** '19, Assumption College
 - Honors Thesis: Analysis of bacteria from the common kitchen sponge
- 2017-2018 **Devon Joyce** '19, Assumption College
 - Honors Thesis: Investigate opioid chemical structure and its prenatal and postnatal effects
 - Graduate school: Physician Assistant Program, Massachusetts College of Pharmacy and Health Sciences, Worcester, MA (2020-2023)
 - Current position: Physician Assistant, Family Medical & Maternity Care, P.C., Leominster, MA
- 2015 **Hieu Nguyen** '15, Assumption College
 - Honors Thesis: The Effect of Montamine Analogs on *E.coli* & *S. aureus* Growth
- 2014 **Shannon (Martin) Paquette** '15, Assumption College
 - Honors Thesis: Location of EFHC1 protein in *Tetrahymena thermophiles* axonemes using Cryo-ET
 - Awarded American Cancer Society's Alvan T. and Viola D. Fuller Fellowship (summer 2015)
 - REU Summer Fellowship Program at Brandeis Material Research Science and Engineering Center, Waltham, MA (summer 2014)
 - Graduate school: Ph.D. Pathobiology Program, Brown University
 - Current position: Postdoctoral Researcher, Dartmouth College
- 2011- 2012 **Stephanie Bouley** '12, Assumption College
 - Honors Thesis: Understanding the role of autophagy in BK Virus infection

Research Students

- 2025-2026 **Kaitlin Dang** '27, Brown University
Research Project: Investigating student experience and learning outcomes in biology classrooms
- 2024-2026 **Brianna Pham** '26, Brown University
Research Project: Integrating archival research into biology classrooms
- 2018-2019 **Sydney Knoll** '19, Assumption College
Research Project: Analysis of bacteria from the common kitchen sponge
Current position: Doctor of Nursing, UMASS Medical School
- 2018 **Nicholina Allain** '19, Assumption College
Research Project: Investigating carbon and nitrogen isotope ratios in hair

- and meat samples
Current position: Process Development Associate, RoslinCT, Hopkinton, MA
- 2014-2015 **Lauren Pepi** '15, Assumption College
Research Project: Cell cycle inhibition influences BK virus infection
Graduate school: Ph.D. in Chemistry at the University of Georgia (2020)
Current position: Glycomics Core Director BIDMC/ Harvard Medical School, Boston, MA
- Summer 2014 **Sarah Williams** '14, Assumption College
Research Project: The effect of Elafin on BK Virus infection
Graduate school: Masters of Public Health Program at Boston University (2017)
Current position: Lead Project Manager, Quality, Patient Safety, and Risk Management at Brigham and Women's Hospital, Boston, MA
- 2013-2015 **Hieu Nguyen** '15, Assumption College
Research Project:: Effect of montamine analogs on *E.coli* & *S. aureus* growth
Pharm.D. at Massachusetts College of Pharmacy and Health Sciences, Worcester, MA (2019)
- 2013-2014 **Maggie Bara** '14, Assumption College
 - Research Project: Immune Response to *Demacoccus* Infection
 - Graduate school: Ph.D. in Biology at Duke University, Durham, NC (2023)
 - Current position: Scientist II, Genomics Technology Development, Watertown, MA
- Fall 2013 **Matt Cooke** '13, Assumption College
 - Research Project: Testing for enteroviruses in Blackstone Valley wastewater treatment center
 - Current position: Director of Business Development, Foundation Medicine, Somerville, MA
- 2011- 2012 **Stephanie Bouley** '12, Assumption College
 - Research Project:: Understanding the role of autophagy in BK Virus infection
 - Awarded American Society for Microbiology Undergraduate Summer Fellowship *39 of 69 applications were funded (summer 2011)
 - Poster Presentation, Posters on the Hill, Washington, DC (April 2012)
 - Travel Award & Outstanding Poster Award, American Society for Microbiology, 112th General Meeting (June 2012)
 - Fulbright Scholarship, University of Tübingen, Germany (2012-2013)
 - Graduate school: Ph.D. in Experimental and Molecular Medicine at Dartmouth College, Hanover, NH (2019)
 - Current position: Postdoctoral Researcher, Massachusetts General Hospital, Boston, MA (2019-present)

Faculty Mentor for Student Presentations at Brown University's Research Poster Day2024-2025 [9 Student Presentations](#) (Click hyperlink for details)**Second Reader / Committee Member for Honors Theses**2013-2026 [18 Student Honors and Masters Theses](#) (Click hyperlink for details)**Faculty Mentor for Student Presentations at Assumption University's Undergraduate Symposium**2012-2021 [29 Student Presentations involving 46 students](#) (Click hyperlink for details)

Faculty Mentor for Off-Campus Internships

2013-2020

[4 Student Internships](#) (Click hyperlink for details)**COMMITTEE WORK & UNIVERSITY SERVICE**

2025-present	Chair, American Society for Microbiology Conference for Undergraduate Educators (ASMCUE) Conference
2025-present	ASM Subcommittee for Undergraduate Education Committee Member
2025- present	Mentor, ASM Future Leaders Mentorship Fellowship Program
2025-present	Faculty Search Committee Member, Assistant Teaching Professor in Biology (Health Informatics)
2024-present	Admission Committee Member, Master's in Biotechnology, Brown University
2023-present	Biology Curriculum Committee Member, Brown University 2025 Textbook Reviewer, <i>Microbiology: An Evolving Science</i>
2022-present	Sheridan Center Departmental Liaison, Brown University
2022-2026	Host of Academic Experience, College Day, Brown University
2024-2025	Vice Chair, ASMCUE Conference
2024-2025	Brown Pfizer Master's Program Review Committee Member, Brown University
2024	Invited member, Community of ASM's Council on Microbial Sciences (COMs) Molecular Biology & Physiology 2024 Community Retreat
2024	Community of ASM's Council on Microbial Sciences (COMs) Molecular Biology & Physiology 2024 Community Retreat
2023-2025	Committee Member, Biology Undergraduate Education DIAP Committee, Brown University
2023-2024	Steering Committee: Newcomer Representative, ASMCUE Planning Committee
2022-2025	Peer Teaching Observer, Biology Education, Brown University – 4 faculty cases
2022-2023	Faculty Search Committee Member, Associate Dean for Medical Education, Program in Liberal Medical Education Brown University *Successful Search
2022	Committee Member, Committee for University Minors Protection Policy, Brown University
2014 - 2022	Reviewer for scientific journals: <i>Microbial Pathogenesis</i> , <i>Journal of Molecular and Genetic Medicine</i>
2021	Sponsor, Bachelor of Science in Biology degree, Assumption University

- Facilitated faculty conversations, compiled feedback, and wrote the application for a new Bachelor of Science in Biology degree program as previously we only offered a Bachelor of Art in Biology
 - Wrote application for curricular changes to our Bachelor of Arts in Biology Program
- 2021 Journal Club Coordinator, Biological and Physical Science Department, Assumption University
- 2020 - 2021 Curriculum Committee for College of Liberal Arts and Science Committee Member, Assumption University
- 2020 *Ad Hoc* Mission Committee for the College of Liberal Arts and Sciences Committee Member, Assumption University
- 2019 - 2020 Co-Chair, Biology Program Review Committee, Assumption University
- 2019 - 2020 Co-organizer, Life Science Seminar Series, Assumption University
Established a new interdisciplinary seminar series with colleagues in Nursing and Health Sciences with the goal of bringing dynamic researchers and health professionals to share their expertise with our community
- 2019 - 2020 Continuing Education Committee Member, Assumption University
- 2019 - 2020 Faculty Search for Health Sciences Position in Human Services and Rehabilitation Studies Department External Committee Member, Assumption University
- 2019 Bachelor of Science Development Committee Member, Assumption University
- 2018 Faculty Search for Neuroscience Position in Biological and Physical Sciences Department Committee Member, Assumption University *Successful Search
- 2017- 2019 Chair, Admissions Committee, Assumption University
Developed and implemented faculty recruitment initiatives that:
- Identified 68 faculty volunteers and collected their academic interest and program affiliations for Office of Admissions
 - Organized and implemented initiative to have faculty volunteers email high school students accepted at Assumption college (collectively 3500 emails sent in 2018)
 - Collected data from email initiative and assessed of effectiveness of the program
- 2017 - 2019 Faculty Senate Representative, Assumption College
- 2017 – 2018 Chair, Nursing Committee, Assumption University
- New committee tasked with assisting the development of a Bachelor’s of Science in Nursing (BSN) Program
 - Co-chair of Search Committee for Dean of Nursing position *Successful Search
 - Worked closely with Dean to develop Assumption’s nursing curriculum
- 2015 – 2016 Institutional Review Board (IRB) Committee, Assumption College

2013 – 2016	Honors Program Council Committee Member, Assumption College
2013 - 2016	Faculty Development Grant Committee Member, Assumption College
2012 - 2016	Undergraduate Symposium Committee Member, Assumption College
Jan. 2015	International Group Travel Leader – 9-day trip to Costa Rica Organized and lead an environmental and cultural student trip to Costa Rica
2013 – 2015	Organizer, Natural Science Departmental Seminar Series, Assumption College (5 semesters)
2013 - 2014	Faculty Search for Physics Position Committee Member, Natural Sciences Department, Assumption College *Successful Search
March 2014	International Group Travel Leader – 7-day trip to Belize Organized and lead biodiversity and cultural student trip to Belize
2011 - 2014	College Conduct Board Committee Member, Assumption College
2011 - 2012	Curriculum Committee Alternate Member, Assumption College
2011 - 2012	Faculty Search for Anatomy Position Committee Member, Natural Sciences Department, Assumption College *Successful Search
2011	Judge, Undergraduate Research Symposium, Assumption College

PROFESSIONAL SOCIETIES

2008-present	American Society for Microbiology – Contributing member
2017-2019	International Society for Extracellular Vesicles – Senior member
2010-2016	Northeast Branch of American Society for Microbiology - Individual member
2004-2012	American Society for Virology - Associate member

COMMUNITY SERVICE

2023	Head Coach, Girls of the Run, Lincoln Central Elementary School, Lincoln, RI
2019 – present	Secretary, Board of Directors, Friends of Lincoln, RI Public Library
2019 – 2020	Co-Organizer, STEM Nights, Lincoln Central Elementary School, Lincoln, RI