

AISLING S. DUGAN

Curriculum Vitae

Box G4, Brown University ~ Providence, RI 02865

Email: aisling_dugan@brown.edu

Faculty Profile Page

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

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|------------------|--|
| 2022 – present | Associate Teaching Professor (formerly Senior Lecturer)
Biology Education, Dept. of Molecular Microbiology and Immunology
Brown University, Providence RI <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• 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

1. **Dugan AS**, Monteiro K, Achilli T. Professionalization of an undergraduate teaching assistant Program to increase participation and build career skills. *Journal of Micrology and Biology Education*. 2025. 26(3). e0003825.
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>.
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.
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
5. Stroh LJ, Gee GV, Blaum BS, **Dugan AS**, Feltkampp MCW, Atwood WJ. Trichodysplasia Spinulosa-associated polyomavirus employs a displayed binding site on VP1 to engage sialylated glycolipids. *Plos Pathogen*. 2015. 11 (8): e1005112.
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.
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.
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.
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.

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.
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.
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.
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.
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.
15. **Dugan AS**, Eash S, Atwood WJ. Update on BK Virus entry and intracellular trafficking. *Transplant Infectious Disease*. 2006. 8 (2): 62-67.
16. Gee GV, **Dugan AS**, Tsomaia N, Meirke DF, Atwood WJ. The role of sialic acid in human polyomavirus infections. *Glycoconjugate Journal*. 2006. 23 (1-2): 19-26.
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.
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.
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.
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.
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.

(Underlined name indicated an undergraduate co-author)

RESEARCH TALKS, PEDAGOGY PRESENTATIONS, & WORKSHOP FACILITATION

- November 2025 Conference Workshop: *Navigating the Non-Tenure Track in Biology: Insights, Strategies, and Shared Experiences*, American Society of Microbiology Conference for Undergraduate Educators (ASMCUE), San Antonio
- November 2024 Roundtable Facilitator: *I don't want to be an AI plagiarism detector! Addressing Biology Teaching Challenges in the New AI Era*, ASMCUE, Pittsburgh, PA
- November 2024 *Beyond the Bench: Integrating Bioethical Topics in Microbiology and Immunology Courses*, ASMCUE, Pittsburgh, PA
- November 2023 *Anti-Racist Teaching: Concept & Practice in Microbiology*, ASMCUE, Phoenix, AZ
- June 2023 *Practicing Antiracism in Biology Classrooms and Beyond*, New England Biology Association for Two-Year Colleges Conference, Community College of Rhode Island, Lincoln, RI
- September 2022 *Innate Immunity to Viruses & Adaptive Immunity to Viruses* guest lectures BIO1560: Virology, Brown University
- April 2021 *Contact Tracing used in Infectious Disease Course*, Community Service Learning Celebration and Faculty Workshop, Assumption University
- June 2018 *Out of the Classroom and into the Community: Integrating a Service Learning Project to an Immunology course*, Project Kaleidoscope (PKAL) Regional Summer Meeting, Salem State University, Salem, MA
- May 2018 *Integrating a Community Service Learning Component into BIO410: Immunology*, Community Service Learning Celebration and Faculty Workshop, Assumption College
- Nov. 2017 *A Virus in Cell Clothing: Mapping Viral Infection in Human Brain Cells*. 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 VP1 in BK Virus Lifecycle.*
4th International Conference on Polyomavirus and Human Disease, Barcelona, Spain
- Aug. 2007 *Identification of Amino Acid Residues in BK Virus VP1 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

- April 2026 Bioethics Conversations in a Microbiology Course: Does Engagement Require a Grade? ASM Connecticut Valley Branch Meeting, Providence, RI
- November 2025 *Beyond the Grade: Engaging Students through Completion Credit Bioethics Writing.* ASMCUE, San Antonio, TX

Aisling S. Dugan
June 2025

Curriculum Vitae

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, 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*

CAREER PRESENTATIONS & COMMUNITY INVOLVEMENT

April 2026	Presenter , T32 Career Panel: Teaching Careers, University of Florida
April 2024	Presenter , <i>Microbiology: A Career with Many Opportunities</i> , Staff of Asclepius Career Series
Fall 2020	Faculty Mentor , <i>Exploring Wellness</i> Interest Circle,: A semester-long program, 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 , <i>How to get a Summer Research Internship!</i> , 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 , <i>Landing the Perfect Internship</i> , Student organized event in residential hall, Assumption College
Feb. 2011, '13, '14	Presenter , <i>How BK Virus Infects Host Cells</i> , Faculty Showcase: Assumption College, Natural Science Dept. Seminar Series, Worcester, MA. (Highlighting faculty research to recruit students for summer research projects.)
Oct. 2011	Presenter , <i>How to reduce stress!</i> , 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

	Making Authentic Assessment Work: From Design to Implementation , Rhode Island Teaching and Learning (RITL), one day workshop, Bryant University
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
April 2025	Exploring How Strategies for Neurodiverse Student Positively Impact All , RITL one day workshop, Providence College
Fall 2024	Learn How to Improve Classroom Teaching Through Universal Design for Learning , ASM seven-part seminar and workshop series
Summer 2024	Getting Started in Biology Education Research , ASM and SABER (Society for the Advancement of Biology Education Research), seven-part seminar and workshop series
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	<u>Teaching Seminars/Workshops</u> (Click hyperlink for details)

	American Society for Microbiology Conference for Undergraduates (ASM-CUE) , Virtual conference
August 2020	Online Teaching Training , D'Amour Center for Teaching Excellence, Assumption College
2020	Reflections on Race , Cross-Cultural Center, Assumption University
2019-2020	Course Innovation Academy , D'Amour Center for Teaching Excellence Assumption College
August 2019	First-Year Dinner Conversation Workshop , Assumption College
May 2019	Educational Equity & Teacher Diversity Policy Forum Annenburg Institute, Brown University
May 2019	Invitation to Learning: Emotions, Inclusivity, and Community Symposium , Assumption College
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) Inspired by Index Cards: Low-Tech Tools for Teaching (2017)
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 114 th General Meeting, Boston, MA
April 2014	Teaching and Technology Mini-Conference D'Amour Center for Teaching Excellence and Information Technology Assumption College
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

Aisling S. Dugan
July 2010

Curriculum Vitae

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

CONSULTING WORK

March-Dec. 2023

Expert Witness and Technical Expert, Bristows LLP. London, England

PRESS / MEDIA

- [*Opening up Horizons of Curiosity: PreCollege Programs Offer a Taste of the Brown Experience.*](#) News from Brown website. July 13, 2023. (Interviewed for this article)
- [*Microbe of the Day: Activities for Sparking Curiosity and Sustaining Attention.*](#) Drexel University Teaching and Learning Center. April 2023. (One teaching practice is highlighted)
- [*Students, faculty react to a return to in-person midterms.*](#) The Brown Daily Herald. January 26, 2023. (Interviewed for this article)
- Lang, Jim. [*Distrupted.*](#) Basic Books. 2020. (A few of my teaching practices are shared in this book).
- [*Assumption Students get Trained as Contact Tracers as Class Incorporate Pandemic Skills.*](#) Boston 25 News. March 16, 2021. (Interviewed for this news segment)
- [*Assumption University Students Training as Contact Tracers to Help During Pandemic.*](#) Spectrum News 1. February 18, 2021. (Interviewed for this news segment)
- [*Students spend spring semester studying to be contact tracers.*](#) WMPR FM NPR radio. February 18, 2021. (Interviewed for this news segment)
- [*Assumption Students Training as Contact Tracers to Assist Worcester in Pandemic Response.*](#) Assumption University News and Event. February 16, 2021. (Press release class training and outreach)
- [*Assumption Student Training to Conduct Contact Tracing.*](#) Worcester Business Journal. February 17, 2021. (Interviewed for this article)
- [*College Town: Assumption Students Training to Become Contact Tracers.*](#) Worcester Telegram and Gazette. February 17, 2021 (Interviewed for this article)
- [*Assumption University students spending spring training to be COVID Contact Tracers.*](#) February 16, 2021. Mass Live
- [*Making Sense of New CDC Study on COVID-19.*](#) Spectrum News 1. April 14, 2020 (Interviewed for this news segment)

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
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
Title of Project: Dissecting BK virus receptor Interactions

(Awarded ~\$70,000 plus benefits)

- 2004-2006 Frederic Poole Gorham Biological Fellowship, Brown University
Title of Project: Dissecting BK virus receptor Interactions
- Summer 1999 Praxis summer fellowship funded through Smith College
Dept. of Microbiology, University of Michigan
Title: Antibiotic resistance in *Enterococcus faecalis* (Awarded \$2000)
- Summer 1998 Summer Internship Funding Program (SIFP) fellowship through Smith College
Dept. of Environmental Conservation
Title: Assessing wellness of fisheries in Central New York State
(Awarded \$2000)

MENTORED STUDENTS AND THEIR ACCOMPLISHMENTS

Honors Students / Independent Studies

- Cameron Le '25, Brown University Capstone Project: Clinical Allergy & Atopy: Pathophysiology, Therapy, and Burden of Disease
- Cagn Walker '24.5, Brown University Capstone Project: Impact of chemical and physical stressors on *D. radiodurans*
- Jeremy Kwon '24, Brown University, Honor Thesis: Endogenous ROS Levels in Clinical Isolates of MRSA, Fulbright US - Korea Presidential STEM Initiative Award
- Rebecca Chioniere '22, Assumption University, Honors Thesis Proposal: Prion disease in animals and interspecies transmission
- Lauren Jakobs '22, Assumption University, Honors Thesis Proposal: The Leaky Pipeline of Women in Biological Science
- Evan Kessinger '21, Assumption University, Honor Thesis: Investigating COVID-19 Disease
- Nicole Bramlitt '21, Assumption University, Honors Thesis: Using RAW264.7 cells as a model for bacterial phagocytosis
- Sydney Knoll '19, Assumption College, Honors Thesis: Analysis of bacteria from the common kitchen sponge
- Devon Joyce '19, Assumption College, Honors Thesis: Investigate opioid chemical structure and its prenatal and postnatal effects
- Hieu Nguyen '15, Assumption College, Honors Thesis: The Effect of Montamine Analogs on *E.coli* & *S. aureus* Growth
- Shannon (Martin) Paquette '15, Assumption College, Honors Thesis: Location of EFHC1 protein in *Tetrahymena thermophiles* axonemes using Cryo-ET
- Stephanie Bouley '12, Assumption College Honors Thesis: Understanding the role of autophagy in BK Virus infection

Research Students

- Kaitlin Dang '27, Brown University, Research Project: Investigating student experience and learning outcomes in biology classrooms
- Brianna Pham '26, Brown University, Research Project: Integrating archival research into biology classrooms
- Sydney Knoll '19, Assumption College, Research Project: Analysis of bacteria from the common kitchen sponge
- Nicholina Allain '19, Assumption College, Research Project: Investigating carbon and nitrogen isotope ratios in hair and meat samples
- Lauren Pepi '15, Assumption College, Research Project: Cell cycle inhibition influences BK virus infection
- Sarah Williams '14, Assumption College, Research Project: The effect of Elafin on BK Virus infection
- Hieu Nguyen '15, Assumption College, Research Project: Effect of montamine analogs on *E.coli* & *S. aureus* growth
- Maggie Bara '14, Assumption College, Research Project: Immune Response to *Demacoccus* Infection
- Matt Cooke '13, Assumption College, Research Project: Testing for enteroviruses in Blackstone Valley wastewater treatment center
- Stephanie Bouley '12, Assumption College, Research Project: Understanding the role of autophagy in BK Virus infection

Faculty Mentor for Student Projects at Brown University's Research Poster Day

2024-2026 [11 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)

SERVICE & COMMITTEE WORK

Extra-Institutional Service

2025-present Chair, American Society for Microbiology Conference for Undergraduate Educators (ASMCUE) Conference
2025-present Committee Member, ASM Subcommittee for Undergraduate Education
2025- present Mentor, ASM Future Leaders Mentorship Fellowship Program

2025-2026	Faculty Search Committee Member, Assistant Teaching Professor in Biology (Health Informatics)
2025	Textbook Reviewer, Microbiology: An Evolving Science
2024-2025	Vice Chair, ASMCUE Conference
2024	Invited member, Community of ASM's Council on Microbial Sciences (COMs) Molecular Biology & Physiology 2024 Community Retreat
2023-2024	Newcomer Representative, ASMCUE Steering Planning Committee
2014 - 2022	Reviewer for scientific journals: Microbial Pathogenesis, Journal of Molecular and Genetic Medicine

University Service at Brown University

2024-present	Admission Committee Member, Master's in Biotechnology
2023-present	Biology Curriculum Committee Member, Brown University
2022-present	Sheridan Center Departmental Liaison
2022-2026	Host of Academic Experience, College Day
2024-2025	Committee Member, Brown Pfizer Master's Program Review
2023-2025	Committee Member, Biology Undergraduate Education DIAP Committee
2022-2025	Peer Teaching Observer, Biology Education, Brown University, 4 faculty case
2022-2023	Faculty Search Committee Member, Associate Dean for Medical Education, Program in Liberal Medical Education *Successful Search
2022	Committee Member, Committee for University Minors Protection Policy

University Service at Assumption University

2021	Chair, Developing a new Bachelor of Science Program
2021	Journal Club Coordinator, Biological and Physical Science Department
2020 – 2021	Curriculum Committee for College of Liberal Arts and Science Committee Member
2020	Ad Hoc Mission Committee for the College of Liberal Arts and Sciences Committee Member
2019 - 2020	Co-Chair, Biology Program Review Committee
2019 - 2020	Founding Co-organizer, Life Science Seminar Series
2019 - 2020	Continuing Education Committee Member
2019 - 2020	Faculty Search for Health Sciences Position in Human Services and Rehabilitation Studies Department External Committee Member
2019	Bachelor of Science Development Committee Member
2018	Faculty Search for Neuroscience Position in Biological and Physical Sciences Department Committee Member University *Successful Search
2017- 2019	Chair, Admissions Committee
2017 - 2019	Faculty Senate Representative
2017-2018	Co-Chair of Dean of Nursing Search Committee * Successful search
2017 – 2018	Chair, Nursing Committee, Assumption University
2015 – 2016	Institutional Review Board (IRB) Committee
2013 – 2016	Honors Program Council Committee Member
2013 - 2016	Faculty Development Grant Committee Member
2012 - 2016	Undergraduate Symposium Committee Member

Jan. 2015	International Student Group Travel Leader – 9-day trip to Costa Rica
2013 – 2015	Organizer, Natural Science Departmental Seminar Series (5 semesters)
2013 - 2014	Faculty Search for Physics Position Committee Member, Natural Sciences Department *Successful Search
March 2014	International Student Group Travel Leader – 7-day trip to Belize
2011 - 2014	College Conduct Board Committee Member
2011 - 2012	Curriculum Committee Alternate Member
2011 - 2012	Faculty Search for Anatomy Position Committee Member, Natural Sciences Department *Successful Search
2011	Judge, Undergraduate Research Symposium

Community Service

2023	Head Coach, Girls of the Run, Lincoln Central Elementary School, 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

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
2004-2012	American Society for Virology - Associate member