

**REBECCA LYN GUY, MLS (ASCP), Ph.D.
CURRICULUM VITAE**

Position: Assistant Professor
Department of Microbiology and Molecular Genetics

Address: Stafford Hall, 114A
Department of Microbiology and Molecular Genetics
The Robert Larner, M.D. College of Medicine
University of Vermont
Burlington, VT 05405
Voice: (802) 656-0941
email: Rebecca.Guy@med.uvm.edu
website: <http://www.med.uvm.edu/mmg/home>

EDUCATION

Year	Institution	Degree	Area of Degree, Accolades
2009-2010	University of Vermont	Post Baccalaureate Certificate	Medical Laboratory Science
1996-2001	University of Vermont	Ph.D.	Microbiology and Molecular Genetics
1992-1996	University of Western Ontario	B.Sc.	Genetics, Honors

LICENSES, CERTIFICATION

Years	License/Certification
2010-present	Medical Laboratory Scientist, MLS (ASCP)

FACULTY POSITIONS HELD

Years	Institution	Academic Title	Department
2021-present	University of Vermont	Assistant Professor	Microbiology and Molecular Genetics
2019-2021	University of Vermont	Instructor	Microbiology and Molecular Genetics
2005-2010	University of Vermont	Lecturer	Medical Laboratory Science
2005-2010	University of Vermont	Lecturer	Continuing Education
2009	University of Vermont	Lecturer	Nutrition and Food Science

OTHER POSITIONS AND MAJOR ADMINISTRATIVE POSITIONS HELD

Years	Location/Program Name	Role
2010-2019	University of Vermont Medical Center	Charge Medical Laboratory Scientist
2001-2004	University of Vermont, Department of Pharmacology	Post-doctoral fellow

HONORS AND AWARDS

Year	Name
2009	Dean's Outstanding Faculty Award, College of Nursing and Health Sciences, University of Vermont
2025	Kroepsch-Maurice Excellence in Teaching Award, UVM, nominee
2026	Kroepsch-Maurice Excellence in Teaching Award, UVM, nominee

KEYWORDS/AREAS OF INTEREST

Microbiology, infectious disease, virulence factors, clinical laboratory techniques

SUMMARY OF PROFESSIONAL ACTIVITIES

As an Assistant Professor in the Department of Microbiology and Molecular Genetics (MMG), my responsibilities are focused on undergraduate science education. My work lies outside clinical or medical student teaching and centers instead on preparing students in STEM majors, including Molecular Genetics, Microbiology, and Biochemistry for careers in biomedical research, biotechnology, and the health professions.

Since joining the University of Vermont in 2019, I have built a robust and cohesive portfolio of teaching, educational scholarship, and service. I have led curricular transformations, developed research-based courses, advanced assessment practices, and mentored students across classroom, laboratory, and professional contexts. My scholarship has been shared through national venues and peer-reviewed publications, and I have taken on meaningful service and leadership roles that support both institutional goals and national professional communities.

SUMMARY OF ACCOMPLISHMENTS**1. Direct Teaching**

- Primary instructor for core microbiology and molecular genetics courses (MMG2040, MMG1650, MMG2010) with consistently strong student and peer evaluations.
- Developed and taught 15 distinct courses across lecture, lab, online, and hybrid modalities, including MMG2990 (Vaccines: Science and Ethics), MMG's first fully online WIL2-proposed course.
- Implemented evidence-based pedagogy (backward design, inclusive teaching, alternative grading, formative technologies).

2. Mentoring and Advising

- Provide academic and career advising to 30+ undergraduates annually across several STEM majors.
- Mentored dozens of students through independent research, honors theses, and competitive internship placements.
- Advise three SGA organizations (MMG Club, Women in STEM, The Natural Philosopher), supporting professional identity formation outside the classroom.

3. Curriculum Development and Dissemination

- Led the redesign of MMG104 into MMG2040, a Course-Based Undergraduate Research Experience (CURE) integrated with the NSF-funded Yeast ORFan Gene Project.
- Co-developed and co-taught BIOC3991: Biochemistry Biotechnology Internship, creating industry partnerships and a preparatory “Skills Bootcamp.”
- Present on curriculum innovation, inclusive assessment, and workforce-connected learning at national venues (ASMCUE and CBEC).

4. Educational Leadership and Administration

- Active member of the LCOM Teaching Academy (Portfolio Review Committee, Ambassador, Advisory Council).
- Chair, CALS Academic Awards Committee; member of multiple university and cross-college advisory groups (Student Accessibility Services, Food Systems, Medical Laboratory Science).
- National leadership through service as JMBE peer reviewer and member of the ASMCUE 2025 Planning Committee.

5. Learner Assessment

- Advanced use of validated and inclusive assessment methods, including Microbiology Concept Inventory, iClicker Cloud, Writing-to-Learn, and peer review.
- Developed new assessment frameworks for experiential and research-based courses, including the Biochemistry Biotechnology Internship and MMG2040 CURE.
- Co-facilitated ASMCUE Summer Series workshop on AI-enhanced formative assessment, advancing student feedback literacy and metacognition.

PROFESSIONAL SERVICE

DEPARTMENTAL SERVICE

Years	Department	Committee	Role
2019-present	Microbiology and Molecular Genetics	Undergraduate Education	Member

COLLEGE SERVICES

Years	Service Committee	Role
2019-present	Food Systems Advisory Committee, CALS, UVM	Member
2019-present	MMI Interviews, LCOM Admissions, UVM	MMI interviewer
2021-2023	Academic Awards Committee, CALS, UVM	Member
2024-present	Academic Awards Committee, CALS, UVM	Chair
2021-2024	Portfolio Review Committee, Teaching Academy, LCOM, UVM	Member
2023	Medical Curriculum Committee, LCOM, UVM	Interim Member
2023-present	Teaching Academy Advisory Counsel	Member
2024- present	Teaching Academy Departmental Ambassadors	Member

MEDICAL CENTER SERVICE - none

UNIVERSITY SERVICE

Years	Service Committee	Role
2019-2020	Search committee for Medical Laboratory Sciences Clinical Faculty Position,	Member

	Biomedical and Health Sciences, CNHS, UVM	
2019-present	Medical Laboratory Science Advisory Committee, CNHS, UVM	Member
2020-present	Pre-medical Enhancement Program Selection Committee, UVM	Member
2021-present	Microbiology and Molecular Genetics Club, UVM SGA, undergraduate club	Faculty Advisor
2021-present	Women in STEM Club, UVM SGA, undergraduate club	Faculty Advisor
2021-2022	Search committee for Department Chair, Biomedical and Health Sciences, CNHS, UVM	Member
2022	Learning Community Book Discussion Sessions	Discussion Group Facilitator
2021-present	The Natural Philosopher, UVM SGA, undergraduate club	Faculty Advisor
2023-present	Student Accessibility Services, Faculty Advisory Committee, UVM	Member

GOVERNMENT – none

SOCIETY MEMBERSHIPS

Years	Society
2019-present	American Society for Microbiology
2019-present	American Society for Clinical Pathology

SERVICE TO PROFESSIONAL ORGANIZATIONS

Years	Service Committee	Role
2024-present	American Society of Microbiology Conference for Undergraduate Educators (ASMCUE) 2025 Planning Committee	Member
2025	American Society of Microbiology Conference for Undergraduate Educators (ASMCUE) Summer Session	Discussion Facilitator
2025	ASMCUE Travel Award review committee	Member
2025	ASMCUE Proposal review committee	Member

SERVICE TO PROFESSIONAL PUBLICATIONS

Years	Journal/Publication/Board	Role
2020-present	Journal of Microbiology and Biology Education	Reviewer

PUBLIC SERVICE

Years	Service Role
2023-present	Volunteer Doula, Doula Services, Labor and Delivery, UVMHC
2010-2022	Girl Scout Troop Leader, Troop 30024

SUMMARY OF SERVICE ACTIVITIES

My service record demonstrates a sustained and significant commitment to the educational mission of LCOM, UVM, and the national microbiology education community. At LCOM, I have served since 2019 as a **Multiple Mini-Interview (MMI) interviewer** for medical school admissions and served one year as an interim member of the **Medical Curriculum Committee**. I have been an active contributor to **the LCOM Teaching Academy** since 2019, serving as a **Portfolio Review Committee member** (2021–2024), **departmental ambassador**, and current **Advisory Council member**. These roles support faculty development and excellence in teaching across the College.

Within CALS, I serve as **Chair of the Academic Awards Committee**, where I oversee the nomination and selection of students for college-wide honors. I also serve on the **Food Systems Advisory Committee**, contributing to interdisciplinary curriculum discussions. University-wide, I am a member of the Faculty **Advisory Committee for Student Accessibility Services**, supporting campus-wide inclusion practices, and the **Medical Laboratory Science Advisory Committee** in CNHS, where I bring expertise as an MLS(ASCP)-certified educator.

I advise three **Student Government Association (SGA) organizations** (MMG Club, Women in STEM, and The Natural Philosopher) mentoring student leaders and promoting professional identity formation outside the classroom. I also contribute nationally as a **peer reviewer for the Journal of Microbiology and Biology Education** and a **member of the 2025 ASMCUE Planning Committee**, helping shape ASM's flagship undergraduate education meeting.

TEACHING**FORMAL SCHEDULED CLASSES**

Year	Course Title	Course R E		Hours	Number of Learners	Learner Level
Spring 2019	Clinical Microbiology I, MMG222/296		X	10	41	Undergraduate
Spring 2019	Introduction to Recombinant DNA Technology, MMG104	X		168	57	Undergraduate
Spring 2019	Bioterrorism and Infectious Agents, MMG 296		X	5	37	Undergraduate
Fall 2019	Microbiology and Pathogenesis, MMG065	X		35	115	Undergraduate
Fall 2019	Foundations of Clinical Science, MD540	X		2	124	MS1
Spring 2020	Advanced Medical Microbiology, MMG222/296		X	10	37	Undergraduate
Spring 2020	Introduction to Recombinant DNA Technology, MMG104	X		168	61	Undergraduate
Spring 2020	Internship, MMG290		X	30	1	Undergraduate
Spring 2020	Food Systems Seminar I, FS093	X		0.5	36	Undergraduate

Summer 2020	Vaccines: Science and Ethics, MMG195		X	45	9	Undergraduate
Fall 2020	Microbiology and Pathogenesis, MMG065	X		35	130	Undergraduate
Fall 2020	Microbiology and Infectious Disease, MMG101	X		12	190	Undergraduate
Fall 2020	Internship, MMG290		X	30	1	Undergraduate
Spring 2021	Advanced Medical Microbiology, MMG222/296		X	15	62	Undergraduate
Spring 2021	Introduction to Recombinant DNA Technology, MMG104	X		180	48	Undergraduate
Spring 2021	Vaccines: Science and Ethics, MMG195		X	45	44	Undergraduate
Spring 2021	Food Systems Seminar I, FS093	X		2	32	Undergraduate
Spring 2021	Internship, MMG290		X	30	1	Undergraduate
Summer 2021	Vaccines: Science and Ethics, MMG195		X	45	5	Undergraduate
Fall 2021	Microbiology and Pathogenesis, MMG065	X		35	122	Undergraduate
Fall 2021	Microbiology and Infectious Disease, MMG101	X		15	183	Undergraduate
Fall 2021	Internship, MMG290		X	15	4	Undergraduate
Fall 2021	First Year Colloquium, MMG001	X		5	22	Undergraduate
Spring 2022	Advanced Medical Microbiology, MMG222/296		X	45	65	Undergraduate
Spring 2022	Introduction to Recombinant DNA Technology, MMG104	X		180	60	Undergraduate
Spring 2022	Vaccines: Science and Ethics, MMG195		X	45	43	Undergraduate
Spring 2022	Food Systems Seminar I, FS093	X		1	29	Undergraduate
Spring 2022	Undergraduate Research, MMG197		X	15	3	Undergraduate
Spring 2022	Undergraduate Research, MMG198		X	15	6	Undergraduate
Spring 2022	Undergraduate Research, MMG297		X	15	5	Undergraduate
Spring 2022	Undergraduate Research, MMG298		X	15	8	Undergraduate
Spring 2022	Internship, MMG290		X	15	4	Undergraduate
Summer 2022	Vaccines: Science and Ethics, MMG195		X	45	7	Undergraduate

Fall 2022	Unseen Worlds, Microbes and You, MMG002	X		17.5	84	Undergraduate
Fall 2022	Microbiology and Pathogenesis, MMG065	X		35	129	Undergraduate
Fall 2022	Microbiology and Infectious Disease, MMG101	X		17.5	174	Undergraduate
Fall 2022	Undergraduate Research, MMG197		X	15	2	Undergraduate
Fall 2022	Undergraduate Research, MMG198		X	15	4	Undergraduate
Fall 2022	Undergraduate Research, MMG297		X	15	5	Undergraduate
Fall 2022	Undergraduate Research, MMG298		X	15	3	Undergraduate
Fall 2022	Internship, MMG290		X	15	1	Undergraduate
Spring 2023	Advanced Medical Microbiology, MMG222/296		X	45	37	Undergraduate
Spring 2023	Introduction to Recombinant DNA Technology, MMG104	X		285	60	Undergraduate
Spring 2023	Bioterrorism, MMG235		X	22	30	Undergraduate
Spring 2023	Food Systems Seminar I, FS093	X		1	37	Undergraduate
Spring 2023	Undergraduate Research, MMG197		X	15	1	Undergraduate
Spring 2023	Undergraduate Research, MMG198		X	15	3	Undergraduate
Spring 2023	Undergraduate Research, MMG297		X	15	3	Undergraduate
Spring 2023	Undergraduate Research, MMG298		X	15	5	Undergraduate
Summer 2023	Vaccines: Science and Ethics, MMG195		X	45	7	Undergraduate
Fall 2023	Microbiology and Pathogenesis, MMG1650	X		35	136	Undergraduate
Fall 2023	Microbiology and Infectious Disease, MMG2010	X		35	165	Undergraduate
Fall 2023	Undergraduate Research, MMG1995		X	15	9	Undergraduate
Fall 2023	Undergraduate Research, MMG2995		X	15	8	Undergraduate
Fall 2023	Undergraduate Research, MMG3995		X	15	9	Undergraduate
Fall 2023	Internship, MMG3991		X	15	1	Undergraduate
Fall 2023	Independent Study, MMG3993		X	15	4	Undergraduate

Spring 2024	Advanced Medical Microbiology, MMG3220		X	45	39	Undergraduate
Spring 2024	Graduate Medical Microbiology, MMG5220		X	45	5	Graduate
Spring 2024	Introduction to Molecular Genetics, MMG2040	X		285	52	Undergraduate
Spring 2024	Undergraduate Research, MMG1995		X	15	6	Undergraduate
Spring 2024	Undergraduate Research, MMG2995		X	15	11	Undergraduate
Spring 2024	Undergraduate Research, MMG3995		X	15	15	Undergraduate
Spring 2024	Vaccines: Science and Ethics, MMG2990		X	45	12	Undergraduate
Fall 2024	Microbiology and Pathogenesis, MMG1650	X		35	136	Undergraduate
Fall 2024	Microbiology and Infectious Disease, MMG2010	X		35	165	Undergraduate
Fall 2024	Undergraduate Research, MMG1995		X	15	4	Undergraduate
Fall 2024	Undergraduate Research, MMG2995		X	15	8	Undergraduate
Fall 2024	Undergraduate Research, MMG3995		X	15	9	Undergraduate
Spring 2025	Advanced Medical Microbiology, MMG3220		X	45	35	Undergraduate
Spring 2025	Graduate Medical Microbiology, MMG5220		X	45	6	Graduate
Spring 2025	Introduction to Molecular Genetics, MMG2040	X		285	56	Undergraduate
Spring 2025	Undergraduate Research, MMG1995		X	15	4	Undergraduate
Spring 2025	Undergraduate Research, MMG2995		X	15	12	Undergraduate
Spring 2025	Undergraduate Research, MMG3995		X	15	13	Undergraduate
Spring 2025	Bioterrorism, MMG3350		X	45	41	Undergraduate
Spring 2025	Biochemistry Biotechnology Internship, BIOC3991		X	18	6	Undergraduate
Fall 2025	Microbiology and Pathogenesis, MMG1650	X		35	146	Undergraduate
Fall 2025	Microbiology and Infectious Disease, MMG2010	X		35	169	Undergraduate
Fall 2025	Undergraduate Research, MMG1995		X	15	4	Undergraduate
Fall 2025	Undergraduate Research, MMG2995		X	15	8	Undergraduate

Fall 2025	Undergraduate Research, MMG3995		X	15	16	Undergraduate
Fall 2025	Internship, MMG3991		X	15	1	Undergraduate
Spring 2026	Advanced Medical Microbiology, MMG3220		X	45	52	Undergraduate
Spring 2026	Graduate Medical Microbiology, MMG5220		X	45	4	Graduate
Spring 2026	Introduction to Molecular Genetics, MMG2040	X		285	37	Undergraduate
Spring 2026	Undergraduate Research, MMG1995		X	15	7	Undergraduate
Spring 2026	Undergraduate Research, MMG2995		X	15	10	Undergraduate
Spring 2026	Undergraduate Research, MMG3995		X	15	19	Undergraduate
Spring 2026	Vaccines: science and ethics, MMG2114		X	45	42	Undergraduate
Spring 2026	Internship, MMG2991		X	15	1	Undergraduate
Spring 2026	Molecular Pathology, PATH6070/BME6990	X		1.5	3	Graduate

R-required; E-elective; Hours-approx. per semester

CURRICULUM DEVELOPMENT

Year	Course	Contribution
Fall 2019	Microbiology and Pathogenesis, MMG065	<ul style="list-style-type: none"> - alignment of course learning objectives with ASM Microbiology in Nursing and Allied Health (MINAH) Undergraduate Curriculum Guidelines - implementation of Microbiology Concept Inventory (MCI) - active learning in a hybrid model using digital tools including Mastering Microbiology™ (Pearson Higher Education)
Spring 2020	Introduction to Recombinant DNA Technology, MMG104	- implementation of Bioinformatics modules from Yeast ORFan Gene Project
Summer 2020	Vaccines: science and ethics, MMG195	<ul style="list-style-type: none"> - new fully online course - implementation of Writing-to-Learn principles, peer-review of weekly journals and formal writing assignments
Fall 2020	MMG Internship, MMG290	<ul style="list-style-type: none"> - new internship proposal template - new field supervisor evaluation form
Fall 2021	Introduction to Recombinant DNA Technology, MMG104	- new course proposal to change from three credit laboratory to four credit lecture/laboratory course for spring 2023
Spring 2022	Introduction to Recombinant DNA Technology, MMG104	- implementation of first CURE for Molecular Genetics major, Yeast ORFan Project

Spring 2022	Advanced Medical Microbiology, MMG222/296	- active learning using iClicker Cloud tool during lectures
Fall 2022	MMG101, Microbiology and Infectious Disease	- active learning using iClicker Cloud tool during lectures - alignment of course learning objectives with ASM Curriculum Guidelines for Undergraduate Microbiology Education
Spring 2023	Introduction to Recombinant DNA Technology, MMG104	- implementation of 4-credit design, new lecture component (3 hrs/week) in addition to laboratory sessions (previous 3-credit iteration)
Summer 2024	Bioterrorism and Infectious Disease	- course redesign using Backwards Design model\ - alignment with programmatic learning goals - active learning modules
Fall 2024	MMG Undergraduate Research Courses	- implemented structured writing and reflection components (literature review/research proposal; semester reflection) in undergraduate research courses to promote deeper learning and integration of scientific inquiry with research experience.
Spring 2025	Biochemistry Biotechnology Internship, BIOC3991	- developed advertising materials to promote the internship course, reaching a wide pool of applicants - designed and managed the application process, ensuring a streamlined and effective system for candidate submissions - played an integral role in the selection process, screening over 90 applications and helping choose the final 6 students based on qualifications and fit - co-taught a 3-week "Skills Bootcamp," preparing students with essential skills and knowledge prior to starting their internships

POSTGRADUATE AND OTHER COURSES - none

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

Dates	Name	Program/ School	Role	Current Position
2019-2020	Ellie Alsbaugh	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2020
2019	Kayleigh Bean	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to UVM College of Arts and Science December 2019
2019-2020	Rachael Podtburg	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2020

2019-2020	Maddie Murray	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned December 2020
2019-2020	Ariel Martin	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned December 2020
2019-2020	Jamey Stebbins	Food Systems/University of Vermont	Faculty Advisor	Food Systems B.S. earned May 2020
2019-2020	Wiatt Suich	MMG/University of Vermont	Faculty Advisor	Medical Laboratory Science B.S. earned May 2020
2019-2020	Lexi Wheeler	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned December 2020
2019-2021	Ian Sturm	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2021
2019-2021	Emily Wilson	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned December 2021
2019-2022	Abby Bruhm	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned December 2022
2019-2022	Natalie Culler	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2022
2019-2023	Julia Guiles	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023
2019-2023	Georgia Kinahan	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2023
2019-2022	Stacia Rice	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned December 2022
2019-2022	Hannah Stone	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned December 2022
2019-2020	Michaela Flore	MMG/University of Vermont	Student Employee Supervisor	Microbiology B.S. earned May 2020
Spring 2020	Lauren Cozzens	MMG/University of Vermont	Federal Work Study Supervisor	Undergraduate

Spring 2020	Alexia Bove	MMG/University of Vermont	Federal Work Study Supervisor	Undergraduate
2020-2022	Jake Bears	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned December 2022
2020-2021	Connor Desmond	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. and Biochemistry B.S. earned May 2021
2020-2021	Aidan Schutt	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to UVM College of Nursing and Health Sciences Fall 2021
Spring 2020	Ellie Alspaugh	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2020	Lauren Cozzens	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2020	Nathan Ehrenreich	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2020	Emily Whitaker	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
Spring 2020	Emily Stassen	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
2020-2023	Jordan Allen-Brandon	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2023
2020-2024	Maya Asher	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2024
2020-2021	Jonathan Cabrera	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to UVM College of Engineering and Mathematical Sciences Spring 2021
2020-2021	Steven Do	MMG/University of Vermont	Faculty Advisor	Undergraduate; last semester enrolled Spring 2021
2020-2021	Jaime Forte	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to UVM

				College of Nursing and Health Sciences Spring 2021
2020-2022	Anna Hinkel	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to Biological Sciences, UVM Fall 2022
2020-2022	Matthew Nolan	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned December 2022
2020-2024	Graecia Aine Pacheco	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2024
2020-2023	Liv Ruggerio	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2023
2020-2021	Raina Tasdeler	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to Environmental Sciences, UVM Spring 2021
2020-2024	Maggie Haley	Biochemistry/University of Vermont	Faculty Advisor	Biochemistry B.S. earned May 2024
2020-2024	Michael Kaszycki	Biochemistry/University of Vermont	Faculty Advisor	Biochemistry B.S. earned May 2024
2020-2021	Yi-Hunh Lai	Biochemistry/University of Vermont	Faculty Advisor	Biochemistry B.S. earned December 2021
2020-2024	Lexie-Anne Madden	Biochemistry/University of Vermont	Faculty Advisor	Biochemistry B.S. earned December 2024
2020-2021	Alena Von Rhedey	Biochemistry/University of Vermont	Faculty Advisor	Undergraduate; transfer to UVM College of Nursing and Health Sciences Fall 2021
2020-2022	Julius Herzog	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to new faculty advisor December 2022
Spring 2021	Eric Coughlin	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2021	Natalie Culler	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant

Spring 2021	Noelle Cataldo	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2021	Whitney Renaud	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2021	Evan Hoffman	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
Spring 2021	Emily Holt	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
2021-2024	Elliot Gere	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2024
2021-2025	Chase Christiansen	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2025
2021-2023	Phillip Gulick	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023
2021-2024	Kiely Hills	MMG/University of Vermont	Faculty Advisor	Undergraduate; left UVM Spring 2024
2021-2021	Riley King	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to Bates College Fall 2022
2021-2022	Sam Meier	MMG/University of Vermont	Faculty Advisor	Undergraduate; Leave of absence Fall 2022
2021-2022	Rachel Palmer	MMG/University of Vermont	Faculty Advisor	Undergraduate; Leave of absence Fall 2022
2021-2022	Anna Rees	MMG/University of Vermont	Faculty Advisor	Undergraduate; transfer to UVM College of Engineering and Mathematical Sciences, Fall 2022
2021-2024	Carter Wallace	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned December 2024
2021-2023	Sam Lerner	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023
Fall 2021	Eric Coughlin	MMG/University of Vermont	Internship Supervisor	Undergraduate Intern
2021-2023	Owen Kulp	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023

2021-2024	Sara Jaffrani	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2024
2021-2023	Isabelle Laskey-Rigrod	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023
2021-2023	Will Keegan	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023
Spring 2022	Eric Coughlin	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Patricio Flores-Bringas	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Mary Caruso	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Elise Courtney	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Hannah Kubinski	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Olivia Mendes	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Amelia Lamberty	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
Spring 2022	Jayita Barua	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
Spring 2022	Natalie Culler	MMG/University of Vermont	Course Instructor, MMG194	Undergraduate Teaching Assistant
Spring 2022	Brooke Mickle	MMG/University of Vermont	Course Instructor, MMG222	Undergraduate Teaching Assistant
Spring 2022	Molly Douglas	MMG/University of Vermont	Internship Supervisor	Undergraduate Intern
2022	Mary Caruso	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2022
2022	Noelle Cataldo	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2022
2022	Molly Douglas	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2022
2022	Brooke Mickle	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2022

2022	Megan Tarte	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2022
2022-2023	Emmett Dews	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2023
2022-2023	Michaela Forgione	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023
2022-2023	Olivia Genella	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023
2022-2023	Kristina Harmon	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2023
2022-2024	Lexi Rivet	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2024
2022-2023	Nick Robinson	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2023
2022-2025	Kira Safferstein	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2025
2022-2023	Marlena Tyldesley	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2023
2022-2024	Lia Cohen	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2024
2022-2025	Olivier Grabar	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2025
2022-2025	Petra Kapsalis	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2025
2022-2024	Valorie Vanarsdall	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2024
Fall 2022	Will Keegan	MMG/University of Vermont	Internship Supervisor	Undergraduate Intern
Spring 2023	Sylvester Languon	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
Spring 2023	Erica Lamkin	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
Spring 2023	Alicia Finney	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant
Spring 2023	William Dowell	MMG/University of Vermont	Course Instructor, MMG104	Graduate Teaching Assistant

Spring 2022	Jordan Allen-Brandon	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Stacia Richard	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Julia Guiles	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Sara Jaffrani	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Will Keegan	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2022	Lexi Rivet	MMG/University of Vermont	Course Instructor, MMG104	Undergraduate Teaching Assistant
Spring 2023	Emilia Norberg	MMG/University of Vermont	Course Instructor, MMG222/296	Graduate Teaching Assistant
2023-2024	Linden Bronzrusso	MMG/University of Vermont	Faculty Advisor	Food Systems B.S. earned May 2024
Fall 2023	Colin Brebreton	MMG/University of Vermont	Faculty Advisor	Undergraduate
Fall 2023	Elliot Gere	MMG/University of Vermont	Internship Supervisor	Undergraduate Intern
Fall 2023	Adeline Haaker	MMG/University of Vermont	HCOL3881 faculty mentor	Undergraduate
Fall 2023	Gabriella Digiovanni	MMG/University of Vermont	Faculty Advisor	Undergraduate
Fall 2023	Lily Fryer	MMG/University of Vermont	Faculty Advisor	Undergraduate
Fall 2023	Alyza Johnson	MMG/University of Vermont	Faculty Advisor	Microbiology B.S. earned May 2025
Fall 2023	Leo Kavanaugh	MMG/University of Vermont	Faculty Advisor	Undergraduate
Fall 2023	Gavin Kouwenhoven	MMG/University of Vermont	Faculty Advisor	Undergraduate
Fall 2023	Sabrina Paskoff	MMG/University of Vermont	Faculty Advisor	Undergraduate
Fall 2023	Olivia Richardson	MMG/University of Vermont	Faculty Advisor	Undergraduate
Fall 2023	Zoe Robb	MMG/University of Vermont	Faculty Advisor	Undergraduate
Fall 2023	Maia Waldron	MMG/University of Vermont	Faculty Advisor	Undergraduate

Fall 2023	Amelia Worth	MMG/University of Vermont	Faculty Advisor	Undergraduate
Spring 2024	Tylar Kirch	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant
Spring 2024	Courtney Waytashek	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant
Spring 2024	Emmett Dews	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant
Spring 2024	Madeline Carr	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant
Spring 2024	Konnor Yunghans	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant
2024-2025	Mary Litz	MMG/University of Vermont	Faculty Advisor	Biochemistry Undergraduate; dismissed 2025
2024-2025	Daniel Almstead	MMG/University of Vermont	Faculty Advisor	Molecular Genetics B.S. earned May 2025
2024-	Kate Gibbemeyer	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2024-	Chase Whelihan	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2024-	Jake Garniss	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
2024	Greer Hotaling	MMG/University of Vermont	Faculty Advisor	Microbiology Leave of Absence fall 2024
2024-	Angelita Pena	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
2024-	Michael Reece	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
2024-	Christian Torres	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
2024-	Shelby Villemaire	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
2024-	Naveen Kothandaraman	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2024-	Nate Mierzejewski	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate

2024-	Corrine Stemler	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
2024-	Bonnie Blake	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2024-	Eve Brzoza	MMG/University of Vermont	Faculty Advisor	Biochemistry Undergraduate
2024-	Isabella Carlomagno	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
2024-	Vihit Gupta	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2025-	Ben Hood	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2025-	Ava Knific	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2025-	Joshua Koduvalil	MMG/University of Vermont	Faculty Advisor	Biochemistry Undergraduate; Microbiology minor
2024-	Aspen Mrak	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2024-	Sabrina Palastra	MMG/University of Vermont	Faculty Advisor	Biochemistry Undergraduate; Microbiology minor
2024-	Evelyn Siggers	MMG/University of Vermont	Faculty Advisor	Molecular Genetics Undergraduate
2024-	Julia Parent	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
2024-	Alecia Roy	MMG/University of Vermont	Faculty Advisor	Biochemistry Undergraduate; Microbiology minor
Spring 2025	Mona Ruban	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant
Spring 2025	Megan Tarte	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant
Spring 2025	Ethan Putnam	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant

Spring 2025	Aditya Patwardhan	MMG/University of Vermont	Course Instructor, MMG2040	Graduate Teaching Assistant
Spring 2025	Laura Brooks	MMG/University of Vermont	Course Instructor, MMG2040	Undergraduate Teaching Assistant
Spring 2025	Katarina Lile	MMG/University of Vermont	Course Instructor, MMG2040	Undergraduate Teaching Assistant
Spring 2025	Aidan Jones	MMG/University of Vermont	Course Instructor, MMG2040	Undergraduate Teaching Assistant
Spring 2025	Christian Torres	MMG/University of Vermont	Course Instructor, MMG2040	Undergraduate Teaching Assistant
Fall 2025	Julia Freischlag	MMG/University of Vermont	Faculty Advisor	Microbiology Undergraduate
Fall 2025	Joshua Koduvalil	MMG/University of Vermont	Faculty Advisor	Biochemistry Undergraduate

DISSERTATION/THESIS COMMITTEE MEMBERSHIP

Date	Name	Program/School	Role	Current Position
Fall 2021	Ariel Martin	Master's degree thesis, Department of Nutrition and Food Science, Etter Lab	Thesis committee member	Nutrition and Food Science M.S. earned July 2023
Spring 2023	Chelsey Patch	Master's degree thesis, Department of Nutrition and Food Science, Etter Lab	Thesis committee chair	Nutrition and Food Science M.S. earned August 2024
Spring 2023	Daria Clinkscales	Master's degree thesis, Department of Nutrition and Food Science, Etter Lab	Thesis committee member	Nutrition and Food Science M.S. earned August 2024

UNDERGRADUATE THESIS COMMITTEE MEMBERSHIP

Date	Name	Program/School	Role	Current Position
Fall 2019	Sean Quigley	Honors College Senior Thesis	Thesis committee member	Molecular Genetics B.S. earned December 2019
Spring 2020	Matt Bombastore	Honors College Senior Thesis	Thesis committee member	Molecular Genetics B.S. earned May 2020
Spring 2020	Zoe Kalbag	Honors College Senior Thesis	Thesis committee member	Molecular Genetics B.S. earned May 2020

Spring 2020	Nathan Ehrenreich	Honors College Senior Thesis	Thesis committee member	Molecular Genetics B.S. earned May 2020
Fall 2020	Ethan Lafrance	Honors College Senior Thesis	Thesis committee member	Molecular Genetics B.S. earned December 2020
Fall 2020	Lauren Cozzens	Honors College Senior Thesis	Thesis committee member	Molecular Genetics B.S. earned December 2020
Spring 2021	Aislinn Gilmour	Honors College Senior Thesis	Thesis committee member	Microbiology B.S. earned May 2021
Spring 2022	Samantha Staples	Honors College Senior Thesis	Thesis committee member	Microbiology B.S. earned May 2022
Spring 2022	Kira Fisher	Honors College Senior Thesis	Thesis committee member	Molecular Genetics B.S. earned May 2022
Spring 2023	Andrew Crompton	Honors College Senior Thesis	Thesis committee member	Microbiology B.S. earned May 2023
Spring 2023	Remi Savard	Honors College Senior Thesis	Thesis committee member	Microbiology B.S. earned May 2023
Spring 2023	Calleigh Herren	Honors College Senior Thesis	Thesis committee member	Microbiology B.S. earned May 2023
Spring 2023	Rowan Arian	Honors College Senior Thesis	Thesis committee member	Animal Science B.S. earned May 2023
Spring 2024	Valorie Vanarsdall	CALS DUR Senior Thesis	Thesis committee member	Microbiology B.S. earned May 2024
Spring 2024	Maggie Haley	Honors College Senior Thesis	Thesis committee member	Biochemistry B.S. earned May 2024
Spring 2024	Josie Beauregard	Honors College Senior Thesis	Thesis committee member	Biological Sciences B.S. earned May 2024
Spring 2025	Miriam Rose	Honors College Senior Thesis	Thesis committee member	Biological Sciences B.S. earned May 2025
Fall 2025	Ayelet Kaminski	CALS DUR Senior Thesis	Thesis committee member	Microbiology B.S. expected May 2026

Fall 2025	Laura Brooks	CALS DUR Senior Thesis	Thesis committee member	Microbiology B.S. expected May 2026
Fall 2025	Sophia Venman	CALS DUR Senior Thesis	Thesis committee member	Microbiology B.S. expected May 2026

POSTDOCTORAL FELLOWS AND RESIDENTS DIRECTLY SUPERVISED OR MENTORED -
none

INFORMAL TEACHING

Year	Course	Contribution
Spring 2010-2018	Clinical Practicum: Microbiology, MLS250	Mentor to 12 undergraduate seniors each year during their three-week internship in the clinical laboratory at UVMMC
Spring 2020	Introduction to Recombinant DNA Technology, MMG104	Mentor to 2 Graduate Teaching Assistants and 3 Undergraduate Teaching Assistants
Spring 2020	MMG Internship, MMG290	Faculty supervisor to undergraduate student participating in external internship for academic credit
Fall 2020	MMG Internship, MMG290	Faculty supervisor to undergraduate student participating in external internship for academic credit
Spring 2021	Introduction to Recombinant DNA Technology, MMG104	Mentor to 2 Graduate Teaching Assistants and 4 Undergraduate Teaching Assistants
Spring 2021	MMG Internship, MMG290	Faculty supervisor to undergraduate student participating in external internship for academic credit
Fall 2021	MMG Internship, MMG290	Faculty supervisor to undergraduate students participating in external internship for academic credit
Fall 2021	MMG Internship, MMG290	Creation of a one-semester project for CURE Development Intern. Supervised one undergraduate student intern working on the practical aspects of implementing the Yeast ORFan Project in MMG104 for spring 2022
Spring 2022	MMG Internship, MMG290	Creation of a one-semester project for Course Development Intern. Supervised one undergraduate student intern working on

		development of active learning modules for MMG222 for spring 2023
Spring 2022	Introduction to Recombinant DNA Technology, MMG104	Mentor to 2 Graduate Teaching Assistants and 6 Undergraduate Teaching Assistants
Fall 2022	Facilitation Guide for Sustainability Learning Community Book Discussion	Discussion leader for 39 students during Fall 2022 First-year student UVM Orientation
Fall 2022	MMG Internship, MMG290	Creation of a one-semester project for Bioinformatics Development Intern. Supervised one undergraduate student intern working on the update and redesign of bioinformatics modules from the Yeast ORFan Project for implementation in MMG104 for spring 2023
Spring 2023	Introduction to Recombinant DNA Technology, MMG104	Mentor to 4 Graduate Teaching Assistants and 6 Undergraduate Teaching Assistants
Fall 2023	MMG Internship, MMG290	Creation of a one-semester project for CURE Development Intern. Supervised one undergraduate student intern working on troubleshooting Yeast ADE2 CRISPR protocols for implementation in MMG2040 for spring 2024
Fall 2023	Honors Enrichment Contract (HEC) course, HCOL3881	Supervised one undergraduate student in enriched course work connected related to MMG2010. Project aimed to develop methanol fixation protocols for use in undergraduate microbiology courses
Fall 2023	Independent Study, MMG3993	Faculty Mentor to 4 undergraduate students UVM FOUR Office, Research Award: Mini Grant 2023-2024 Project Title: Investigating the efficiency of the Huc protein complex in <i>M. smegmatis</i> and its potential capabilities as an alternative energy source
Spring 2024	Introduction to Molecular Genetics, MMG2040 (formerly MMG104)	Mentor to 4 Graduate Teaching Assistants and 1 Undergraduate Teaching Assistants

Spring 2024	Undergraduate Research, MMG3995	Faculty mentor, Project Title: Investigating the efficiency of the Huc protein complex in <i>M. smegmatis</i> and its potential capabilities as an alternative energy source
Spring 2025	Introduction to Molecular Genetics, MMG2040	Mentor to 4 Graduate Teaching Assistants and 4 Undergraduate Teaching Assistants
Fall 2025	MMG Internship, MMG3991	Creation of a one-semester project for CURE Development Intern. Supervised one undergraduate student intern working on troubleshooting yeast transformation protocols for implementation in MMG2040 for spring 2026
Spring 2026	Introduction to Molecular Genetics, MMG2040	Mentor to 4 Graduate Teaching Assistants and 1 Undergraduate Teaching Assistant
Spring 2026	MMG Internship, MMG2991	Creation of a one-semester project for Microbiology Science Communication Intern. Supervised one undergraduate student intern developing science communication, scientific literacy, and clinical microbiology through the co-development of a professional Instagram account led by a faculty member in microbiology. The intern will work collaboratively with the faculty mentor to translate current microbiology research and public health information into accurate, engaging, and accessible content for majors, nonmajors, and the broader public.

FACULTY MENTORED -none

OTHER VISITING FACULTY SUPERVISED -none

TEACHING AIDS

Years	Course	Description
Spring 2019	Clinical Microbiology I, MMG222	Laboratory manual

Spring 2020	Introduction to Recombinant DNA Technology, MMG104	Laboratory manual
Spring 2020	MMG Internship, MMG290	Internship Proposal Template and Field Supervisor Evaluation Form
Spring 2021	Introduction to Recombinant DNA Technology, MMG104	Laboratory manual modified for hybrid learning model
Spring 2022	Introduction to Recombinant DNA Technology, MMG104	Laboratory manual incorporating twenty newly designed lab exercises and fifteen appendices

TEACHING AWARDS AND NOMINATIONS

Year	Name
2009	Dean's Outstanding Faculty Award, College of Nursing and Health Sciences, University of Vermont - Recipient
2025	Kroepsch-Maurice Excellence in Teaching Award, Assistant Professor level, University of Vermont - Nominee

SUMMARY OF TEACHING ACTIVITIES

My teaching focuses on foundational and advanced undergraduate courses in microbiology and molecular genetics. I have served as the primary instructor for MMG2040 (Introduction to Molecular Genetics), MMG1650 (Microbiology and Pathogenesis), and MMG2010 (Microbiology and Infectious Disease). These are all required courses for life sciences majors with large enrollments and diverse learners. I have taught 15 distinct courses or course iterations across lecture, lab, hybrid, and online formats.

My teaching philosophy is grounded in backward course design, transparency, and inclusive pedagogy. I use validated assessments such as the Microbiology Concept Inventory, formative tools like iClicker Cloud, and alternative grading methods to support learning equity and transparency. I developed MMG2990 (Vaccines: Science and Ethics), MMG's first fully online course, using Writing-to-Learn strategies and structured peer feedback. The course has been proposed for UVM's Writing and Information Literacy 2 (WIL2) designation.

In recognition of my teaching impact, I have been a member of the **LCOM Teaching Academy** since 2019. I consistently receive strong student and peer evaluations and am frequently asked to write letters of recommendation for students pursuing graduate, medical, or professional pathways. I currently advise over 30 undergraduates annually and have mentored dozens of students through research projects, independent studies, honors theses, and competitive internship placements.

RESEARCH AND SCHOLARLY ACTIVITIES

RESEARCH AWARDS AND GRANTS

Completed Research Support – UVM FOUR Office, Fellowships, Opportunities, & Undergraduate Research Award: Mini Grant 2023-2024

Title: Investigating the efficiency of the Huc protein complex in *M. smegmatis* and its potential capabilities as an alternative energy source

Role: PI, faculty mentor

Completed Educational Scholarship Support

Course Implementation Grant, Writing in the Disciplines Institute, UVM Guy (PI) Spring 2020
Seminal Papers in Molecular Biology: Journal Club for Undergraduate Students

The goal of this project was to support course development for a required undergraduate course, Introduction to Recombinant DNA Technology (MMG104) through implementation of Writing-to-Learn practices.

Role: PI

Completed Research Support

AHA 0225608T Guy (Postdoctoral Fellow) and Lounsbury (Sponsor) 7/1/2002-7/31/2004

The role of nuclear transport in the activation and function of CREB in vascular smooth muscle.

The goal of this project was to assess the role of transcription factor CREB in vascular smooth muscle function during atherosclerosis.

Role: Postdoctoral Fellow

Pending -none

Selected Unfunded Grant Submissions -none

SCHOLARSHIP

Year	Program Name	Sponsor
Summer 2014	Anaerobic Culture for the Clinical Laboratory: Tips and Techniques	UMass Lowell
Spring 2016	Laboratory Identification of Emerging Pathogenic Molds	Center for Disease Control and Prevention
Fall 2017	Preparedness Meeting for Hospital Laboratories	Vermont State Health Department
Fall 2017	Workshop for Sentinel Laboratories: Biothreat Agents 101	Vermont State Health Department
Spring 2019	Blackboard Ally for Accessible Courses	The Center for Teaching and Learning, UVM
Spring 2019	Annual Writing in the Disciplines Institute	The Center for Teaching and Learning, UVM
Spring 2019	Conflict Resolution Skills 1, COM045	Professional Development and Training, UVM
Spring 2019	Conflict Resolution Skills 2, COM046	Professional Development and Training, UVM
Spring 2019	Conflict Resolution Skills 3, COM047	Professional Development and Training, UVM
Spring 2019	Supporting Survivors: Advocacy, EDU319	Professional Development and Training, UVM
Spring 2019	Crafting Multiple Choice and Clicker Questions for Higher-Level Thinking	The Center for Teaching and Learning, UVM
Spring 2019	Shaping Effective Writing Processes: How Writers Learn	The Center for Teaching and Learning, UVM
Summer 2019	Animal/Plant Health Criminal-Epidemiological Investigations Course	FBI/APHIS

Summer 2019	ASM Conference for Undergraduate Educators (ASMCUE)	American Society for Microbiology
Summer 2019	Teaching Effectively Online	The Center for Teaching and Learning, UVM
Summer 2019	Using Universal Design for Learning to Plan your Higher Education course, CTL011	The Center for Teaching and Learning, UVM
Summer 2019	Introduction to Scholarship of Teaching and Learning: Research Designs and Methodologies	The Center for Teaching and Learning, UVM
Summer 2019	Hit Pause: Lecture Breaks for Student Engagement and Learning	The Center for Teaching and Learning, UVM
Summer 2019	Grading in a Motivated, Meaningful, and Manageable Way	The Center for Teaching and Learning, UVM
Summer 2019	Medical Laboratory Scientist Credential Maintenance Program	American Society for Clinical Pathology, Board of Certification
Fall 2019	AAEO Faculty Search Training, HRS016	Professional Development and Training, UVM
Spring 2020	Teams for Teaching Remote Workshop	The Center for Teaching and Learning, UVM
Spring 2020	Reimagining Testing When Teaching Remotely	The Center for Teaching and Learning, UVM
Spring 2020	Blackboard Discussion Board	The Center for Teaching and Learning, UVM
Spring 2020	Invitation to learn about YellowDig, an alternative to the Blackboard discussion tool.	The Center for Teaching and Learning, UVM
Fall 2020	Pedagogical Approaches: Course Design Considerations for the MIXED Modality	The Center for Teaching and Learning, UVM
Fall 2020	Pedagogical Approaches: Backward Inclusive Design	The Center for Teaching and Learning, UVM
Fall 2020	Pedagogical Approaches: Transparent Assignment Design (Pivotal Pedagogy II)	The Center for Teaching and Learning, UVM
Fall 2020	Technological Skill Development: Microsoft Teams for Teaching	The Center for Teaching and Learning, UVM
Fall 2020	Technological Skill Development: Advanced Teams	The Center for Teaching and Learning, UVM
Fall 2020	Tests and Quizzes: Creating, Giving, and Grading Them in Blackboard	The Center for Teaching and Learning, UVM
Fall 2020	Teaching Writing Online	The Center for Teaching and Learning, UVM
Fall 2020	Flipgrid Online Workshop	The Center for Teaching and Learning, UVM
Spring 2021	Teaching Writing-Intensive Courses Online	The Center for Teaching and Learning, UVM
Spring 2021	Designing Interactive Syllabi	The Center for Teaching and Learning, UVM
Spring 2021	Yellowdig: An Alternative Discussion Tool	

Spring 2021	Keeping it Real in College: Learning STEM Through Real-World Problems	Scott M. Auerbach, PhD, UMass iCons Program, sponsored by UVM CEMS
Summer 2021	Remote: The connected faculty summit	Arizona State University
Summer 2021- <i>(postponed from Summer 2020)</i>	Yeast ORFan Gene Project Workshop	Dr. Jill Keeney, Juniata College, Project Director
Fall 2021	MMG231, Methods in Bioinformatics (course audit)	Microbiology and Molecular Genetics, UVM
Fall 2021	Improving Your Journal Reviewer Skills	LCOM Teaching Academy Educational Scholarship Mentoring Group
Summer 2022	Bean beetle microbiome project online workshop	Morehouse College and Emory University
Fall 2022	Writing Without Papers: Low- and No-Stakes Writing Activities	The Center for Teaching and Learning, UVM
Fall 2022	Writing or Content? I Don't Have Time for Both!	The Center for Teaching and Learning, UVM
Fall 2022	But I'm Not a Writing Teacher! - Teaching Writing in Your Discipline	The Center for Teaching and Learning, UVM
Fall 2022	The Power of Transparent Assignment Design	The Center for Teaching and Learning, UVM
Fall 2022	Demystifying WIL2	The Center for Teaching and Learning, UVM
Fall 2022	Navigating in Brightspace	The Center for Teaching and Learning, UVM
Fall 2022	Introduction to Brightspace Tools	The Center for Teaching and Learning, UVM
Fall 2022	Exploring Qualitative Research Methods—Start Here!	The Teaching Academy, LCOM
Fall 2022	The ABCs of Brightspace Content	The Center for Teaching and Learning, UVM
Fall 2022	Brightspace Quiz Basics	The Center for Teaching and Learning, UVM
Fall 2022	Brightspace Assignment Basics	The Center for Teaching and Learning, UVM
Spring 2023	Brightspace Migration: First Steps	The Center for Teaching and Learning, UVM
Spring 2023	Teaching Writing in the Age of AI/ChatGPT	The Center for Teaching and Learning, UVM
Spring 2023	Using Writing to Assess Knowledge in the Age of AI/ChatGPT	The Center for Teaching and Learning, UVM
Spring 2023	Writing in the Disciplines Institute	The Center for Teaching and Learning, UVM
Summer 2023	3 Ways to Turn Your Teaching into Scholarship	The Teaching Academy, LCOM
Spring 2024	2024 MicroBREW Integrating Bioinformatics into the Undergraduate Classroom	BREWMOR (Bridging Research and Education with Model Organisms)

Spring 2024	Medically Important Yeasts: A Guide for Budding Mycologists	ASM webinar
Spring 2024	Grading for Growth: A Guide to Alternative Grading Practices that Promote Authentic Learning and Student Engagement in Higher Education	The Center for Teaching and Learning, UVM
Spring 2024	Northern New England Microbiome Symposium	UVM
Fall 2024	Teaching Equitably Online (Asynchronous Online Course)	The Center for Teaching and Learning, UVM
Summer 2025	“Introduction to Qualitative Data Collection Methods” facilitated by S. Beth Bierer, PhD, Med , Director of Assessment and Evaluation and Associate Professor of Medicine, Cleveland Clinic Lerner College of Medicine of CWRU.	The Teaching Academy, LCOM

Peer Reviewed Publications

Original Research

1. **Guy, RL**, Gonias, LA, and Stein, MA. Aggregation of host endosomes by *Salmonella* requires SPI2 translocation of SseFG and involves spvR and the fms-aroE intragenic region, Mol Microbiol. 37(6): 1417-35, 2000. PMID: 10998173
2. **Guy, RL**, Gonias, LA, and Stein, MA. A fluorescence microscopy based genetic screen to identify mutants altered for interactions with host cells, J Microbial Methods. 42(2): 129-38, 2000. PMID: 11018269
3. Suvarnapunya, AE, Zurawski, DV, **Guy, RL**, and Stein, MA. Molecular characterization of the prototrophic *Salmonella* mutants defective for intraepithelial replication, Infect Immun. 71(4): 2247-52, 2003. PMID: 12654850

In Review -none

In Preparation -none

Non-Peer Reviewed Publications

Review Articles - none

Books and Chapters - none

Other Scholarly Publications

Abstracts

1. **Guy, RL**. Preparing for the Unthinkable: A Collaborative Biothreat Assessment Exercise Provides Deeper Understanding of Epidemiological Principles. American Society of

Microbiology Conference for Undergraduate Educators. November 15-17, 2024. Pittsburgh, PA.

2. **Guy, RL.** Preparing for the Unthinkable: A Collaborative Biothreat Assessment Exercise Provides Deeper Understanding of Epidemiological Principles. Larner College of Medicine Snow Season Retreat. January 16-17, 2025. Burlington, VT.

Patents Issued or Pending - none

Other Creative Activities - none

Quality Improvement and Patient Safety Activities - none

SUMMARY OF SCHOLARLY ACTIVITIES

My scholarship centers on curriculum innovation, learner-centered instruction, and inclusive assessment in undergraduate microbiology and molecular genetics. I led the transformation of MMG104 into MMG2040, a **Course-Based Undergraduate Research Experience (CURE)** built around the NSF-funded Yeast ORFan Gene Project. The course introduces students to bioinformatics, hypothesis-driven research, CRISPR editing, and scientific writing. It was formally approved as a 4-credit lecture-lab course in 2023 and now serves as the foundational experience for Molecular Genetics majors. A manuscript detailing this redesign is in preparation for submission to the Journal of Microbiology and Biology Education (JMBE).

In Spring 2025, I co-developed and co-taught BIOC3991: Biochemistry Biotechnology Internship, a cross-college experiential learning course that placed students in local biotech companies. I managed student selection from over 90 applicants, co-designed a preparatory “Skills Bootcamp,” and contributed to the course’s assessment framework. This project demonstrates my leadership in developing innovative, workforce-connected learning experiences.

I actively disseminate my educational work through national and institutional venues. I presented at ASMCUE (2024), the Cell Biology Education Consortium (2024), and the LCOM Snow Season Retreat (2025). I also co-facilitated the 2025 ASMCUE Summer Series workshop “Harnessing ChatGPT and LMS Tools for Formative Assessment,” which highlighted ways to promote student metacognition and feedback literacy using generative AI. I regularly contribute to national scholarly conversations as a **peer reviewer for JMBE**, and my role on the **ASMCUE 2025 Planning Committee** further reflects external recognition of my contributions to the field.

INVITED PRESENTATIONS

Regional –

1. “Leveraging the Backward Design Model in Crafting a Course on Bioterrorism and Infectious Disease”, MMG Seminar Series, University of Vermont, Burlington, VT, June 14, 2024
2. “Modeling Disease Outbreak”, Teen Science Café, UVM Extension, Burlington, VT, February 15, 2025

National –

1. “Yeast as a Model System: Yeast ORFan Gene Project”, Cell Biology Education Consortium CURE Workshop, University of San Diego, San Diego, CA. December 13, 2024
2. “Harnessing ChatGPT and LMS for Formative Assessment in Microbiology Courses”, ASMCUE Summer Series, American Society of Microbiology, Online Meeting, August

13, 2025.

3. “Prioritize This: A Decision-Making Exercise to Rank Biothreats and Practice Public Health Thinking”, American Society of Microbiology Conference for Undergraduate Educators. November 21-23, 2025. San Antonio, TX.

International - none