

Julie Grainy Curriculum Vitae

University of Georgia ♦ Cedar Street Building C Room 670A ♦ Athens, GA 30602-2605

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Education

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| Ph.D. Microbiology | 2013-2019 |
| University of Georgia, Athens, GA | |
| B.S. Biology | 2009-2013 |
| Waynesburg University, Waynesburg, PA | |

Teaching Experience

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| • Lecturer of Microbiology , University of Georgia | 2020-present |
| Health Care Microbiology (MIBO2500) | |
| Introductory Microbiology Lab II (MIBO3510L) | |
| Introductory Microbiology (MIBO3500) | |
| • Assistant Professor of Biology , Southern Utah University | 2019-2020 |
| General Biology I lecture (BIOL 1610) | |
| General Biology I lab (BIOL 1615) | |
| Genetics lecture (BIOL 3060) | |
| Genetics lab (BIOL 3065) | |
| • Graduate Student , University of Georgia | 2016-2018 |
| Instructor of Record for Health Care Microbiology (MIBO2500) Spring 2018 | |
| Teaching Assistant for Health Care Microbiology Laboratory (MIBO2500L) Summer 2016 | |
| Teaching Assistant for Introduction to Microbiology (MIBO3000) Spring 2016 | |

Mentoring and Supervising

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| • Introductory Microbiology Lab II Teaching Assistants | 2020-present |
| Supervised and mentored 17 graduate Teaching Assistants and 8 Microbiology Undergraduate Lab Assistants | |
| • Introduction to Microbiology Teaching Assistants | 2021-present |
| Supervised and mentored 8 graduate Teaching Assistants and 9 undergraduate Peer Learning Assistants | |
| • Health Care Microbiology Teaching Assistants | 2020-present |
| Supervised and mentored 10 graduate Teaching Assistants and 68 undergraduate Microbiology Peer Assistants | |

Research Experience

- **Southern Utah University**, Assistant Professor of Biology 2019-2020
Supervised a Course-Based Undergraduate Research Experience for undergraduate students enrolled in genetics lab
- **University of Georgia**
Graduate research assistant 2013-2019
Dr. Michael Terns, Dept. of Biochemistry and Molecular Biology
 - *Research focus:* Understanding molecular mechanisms governing the adaptation stage of CRISPR-Cas immune systemsResearch Experience for Undergraduates program
Dr. Michael Terns, Department of Biochemistry and Molecular Biology Summer 2012
- **University of North Dakota**
Research Experience for Undergraduates program Summer 2011
Dr. Keith Henry, Dept. of Pharmacology, Physiology & Therapeutics

Publications

- Rodriguez-Garcia C; Wall H, Ottesen E, **Grainy J** (accepted December 2024) 2024
Characterization of extended-spectrum beta-lactamase-producing Enterobacteriaceae from recreational water in Athens, GA using an undergraduate laboratory module. Journal of Microbiology and Biology Education.
- Robinson S; Dolan E; Burd A; Call J; Chen C; Edwards G; Eubig P; **Grainy J**; Jensen J; Wells K (2023) *Promoting student success by expanding research access through Course-Based Undergraduate Research Experiences (CURES).* White Paper. 2023
- **Grainy J.** (2019) *Molecular mechanisms of DNA uptake into CRISPR-Cas loci.* Doctoral dissertation, University of Georgia, United States, 2019. 2019
- **Grainy J**, Garrett S, Graveley BR, Terns MP. (2019) *CRISPR repeat sequences and relative spacing specify DNA integration by Pyrococcus furiosus Cas1 and Cas2.* Nucleic Acids Research. 2019
- Huang G, Ulrich P, Storey M, Johnson D, **Tischer J**, Tovar J, Moreno S, Orlando R, Docampo R. (2014) *Proteomic analysis of the acidocalcisome, an organelle conserved from bacteria to human cells.* PLOS Pathogens. 2014

Presentations

- **Grainy, J.**, *Active Learning Redesign of Introductory Microbiology.* Poster presented at the UGA Active Learning Summit. 2023 February 15-16; Athens, GA 2024
- **Grainy, J.**, Rodriguez Garcia, C., & Ottesen, E. *Water reservoirs for ESBL-Enterobacteriaceae: a laboratory module to increase environmental awareness of antibiotic resistance through extended-spectrum beta-lactamases (ESBLs).* Poster 2023

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presented at the meeting of American Society for Microbiology Conference for Undergraduate Educators. 2023 November 17-19; Phoenix, AZ

- **Grainy, J, Walker J.** *Incorporating Student Voice Into Program and Course Redesign.* 2022
Presentation at the International Teaching and Learning Cooperative Network Lilly Conference. 2022 August 7-10; Asheville, NC.
- **Grainy, J.** *Publishing Biology Classroom Activities on CourseSource.* Presentation at the SUU Festival of Excellence, 2020 April; Cedar City, UT. 2020
- **Grainy J, Walker J.** *Crafting Concept Inventories to Assess Student Misconceptions and Prior Knowledge.* Round table presentation at the University System of Georgia Teaching and Learning Conference. 2018 April 4-6; Athens, GA. 2018
- **Grainy J, Garrett S, Graveley B, Terns M.** *Investigating spacer integration with Cas1 and Cas2 from Pyrococcus furiosus.* Poster presented at the International CRISPR Meeting. 2017 June 8-10; Big Sky, MT. 2017
- **Grainy J, Walker J.** *Assessment of Misconceptions and Prior Knowledge in a Microbiology Course Using a Concept Inventory.* Poster presented at the American Society for Microbiology Conference for Undergraduate Educators. 2017 July 27-30; Denver, CO. 2017
- **Grainy J, Hu J, Shiimori M, Terns R, Terns M.** *Evaluating the roles of Cas4 proteins in CRISPR-Cas.* Poster presented at The University of Georgia Biochemistry and Molecular Biology Conference. 2016 May 15-16; Helen, GA. 2016
- **Tischer J, Majumdar S, Hale C, Lyles T, Terns M, Terns R.** *Studying molecular organization of a P. furiosus CRISPR-Cas complex.* Poster session presented at: Research Experience for Undergraduates at The University of Georgia. 2012 Jul 26; Athens, GA. 2012
- **Tischer J, Lamb P, Zoller I, Newman AH, Henry LK.** *Generation and analysis of site-directed mutants to identify a second citalopram binding site on the human serotonin transporter.* Poster session presented at: Research Experience for Undergraduates at the University of North Dakota; 2011 Aug 5; Grand Forks, ND. 2011

Awards, Fellowships, and Grants

- Learning Technologies Grant team member \$15,000 2024
- Teaching Enhancement Fund team member 2021-2024
- Active Learning Summer Institute 2023
- Teaching Academy Early Career Fellows Program 2021-2022
- Thank-A-Teacher recipient x5 2020-2023
- Faculty Development Support Fund recipient to attend the SABER-West conference 2020
- Excellence in Teaching Award from the UGA Center for Teaching and Learning 2019

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- Professional development grant from the Microbiology Graduate Student Association to attend the University System of Georgia Teaching and Learning Conference 2018
- Outstanding Teaching Assistant Award from the UGA Graduate School 2017
- Carlock award for best student presentation at the Association for College and University Biology Educators Annual Meeting 2017
- UGA Graduate School Travel Grant to attend the American Society for Microbiology Conference for Undergraduate Educators 2017
- UGA Graduate School Travel Grant to attend the International CRISPR meeting 2017
- Women in Science Travel Grant awarded for Global Women in STEM Leadership Summit 2016 and 2017
- Scholarship of Teaching and Learning grant received from the Center for the Integration of Research, Teaching, and Learning for teaching as research project 2016
- First place in the Three Minute Thesis competition at UGA 2016
- National Science Foundation Graduate Research Fellowship Honorable Mention 2015
- PhD Scholars of Excellence Fellowship, UGA 2014
- Gamma Sigma Epsilon student of the year for Waynesburg University chapter 2013
- Outstanding senior award in the department of biology, Waynesburg University 2013
- Community service award at graduation, Ross Corners Christian Academy 2009
- Baush and Lomb science award, Ross Corners Christian Academy 2009

Professional Development

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| University of Georgia, Lecturer of Microbiology | 2020-present |
| • Creating Course Learning Outcomes for Competency Mapping | 2024 |
| • Generative AI & Teaching | 2024 |
| • Teaching after Tragedy: Caring for Yourself & Your Students | 2024 |
| • Writing & Using Teaching Self-Reflections | 2024 |
| • Making Sense of Student Experience Surveys | 2024 |
| • Active Learning Summer Institute | 2023 |
| • American Society for Microbiology Conference for Undergraduate Educators | 2023 |
| • Career Everywhere Faculty Program | 2023-present |
| • Faculty Learning Community: NTT-faculty | 2020-present |
| • Faculty Learning Community: Course Based Undergraduate Research | 2022-2023 |
| • DeLTA Dossier Learning Community member | 2022-2023 |
| • Active Learning Summit at UGA | 2023 |
| • Student Engagement: From the Classroom to Custom Content hosted by TopHat | 2022 |
| • Learning and Relationships in (and Beyond) our Courses Workshop | 2022 |

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- International Teaching Learning Cooperative Network Lilly Conference. Asheville, NC 2022
- Teaching Academy Early Careers Fellows Program 2021- 2022
- “Preparing to Pivot” online course through the Center for Teaching and Learning 2020
- Diversity and Inclusion
 - It’s Really NOT All in Your Head: Understanding Mental Health Disabilities 2021
 - Religious Diversity: Supporting and Inclusive Classroom and Community 2021
- Training and Development
 - Faculty Search Committee Training 2023
 - National Center for Faculty Development & Diversity webinar: Creating a Culture of Support for All Faculty 2022
 - Leadership Workshop: Intro to Facilitation 2021
 - Taking Mentoring to the Next Level 2020
 - Professional Development Circle: Learning to Work, Live, and Lead Through Change and Uncertainty
- Faculty orientation 2020
 - How Learning Works: Engaging your students in Active Learning
 - Gathering (and Responding to) Feedback on Your Teaching
 - Policies for Pedagogy: Teaching @ UGA
 - Experiential Learning in and out of the UGA Classroom
 - Accessible Teaching
 - Planning & Time Management for the Academic Life

Southern Utah University, Assistant Professor of Biology 2019-2020

- New Faculty learning community Fall 2019 and Spring 2020
- Supporting Diverse Needs through Inclusive Design and Learner Preference – workshop
- How do I Convince Myself (& Others) That I am an Effective Teacher – workshop
- Attended the Society for the Advancement of Biology Education Research (SABER)-West annual conference in Irvine, California January 2020.
- Represented the SUU biology department at the Institute of Civic Prompts in the Major in Los Angeles, California. January 2020.

University of Georgia, Graduate Student 2013-2019

Graduate courses:

- GRSC7770: Graduate Seminar in Teaching Course
- GRSC7870S: Service Learning Course Design
- EDHI9040: Using Technology in the Classroom
- An Introduction to Evidence-Based Undergraduate STEM Teaching online course
- Advancing Learning Through Evidence-Based STEM Teaching online course

University of Georgia, Graduate Student

2013-2019

University of Georgia Center for Teaching and Learning:

- Active Learning in STEM Courses
- Facilitating Learning in STEM
- Designing Rubrics for Classroom Assessment
- Increasing Students' Critical Thinking About Selection of Research Sources
- Best Practices in Quantitative Data Collection: Designing Surveys Students Want to Take
- Top 10 Strategies for Transitioning from TA to Faculty
- Planning, Presenting, and Publishing Classroom Research
- Best Practices in Analyzing and Displaying Quantitative Data
- Writing up SoTL Research for the Non-Education Researcher
- Understanding Human Subjects Research and the Institutional Research Board

Center for the Integration of Research, Teaching, and Learning:

- The Academic Job Search
- Integrating Effective Teaching & Assessment Practices in Biology Lab Courses Through Case Studies
- Exploring Critical and/or Feminist STEM Teaching and Research
- Women in STEM Careers Panel
- Preparing for and Navigating the Job Market
- The Status of Women Scientists
- Writing a Teaching Philosophy Statement

Future Faculty Fellows Program:

- Crafted teaching philosophy, diversity statement, and other components of a teaching portfolio
- Conducted mid-semester formative evaluations for graduate instructors
- Prepared and facilitated a break-out session for TA orientation titled "Running a Web Lab"
- Prepared and facilitated a workshop for the UGA Spring Teaching Symposium titled "How to Build a Teaching Portfolio When You Aren't the Teacher"

Certificate in Diversity and Inclusion:

- Self-awareness and Reflective Practice for Diversity and Inclusion
- Institutional Diversity in a Digital Transformation Era
- Got your six – Supporting UGA's Student Veterans
- An LGBT Primer – Creating an Inclusive Community
- Diversity Through Dance
- Diversity at UGA: Beyond the Numbers
- Safe Space Training

Interdisciplinary Certificate in University Teaching:

- Taught five course sections as instructor of record, TA, or LA
- Completed nine credit hours of teaching development courses
- Teaching project: Created a concept inventory for MIBO3500
- Scholarship of Teaching: Presented teaching project at five peer-reviewed professional meetings
- Submitted a twelve-page teaching portfolio to the Graduate School Portfolio Program

Scientists Engaged in Education Research:

- Survey Construction and Analysis workshop
- Scholarship of Teaching and Learning workshop by guest speaker Nancy Chick
- Rubric Creation workshop by guest speaker Stephanie Gardner
- Persistent Student Tendencies to Memorize Versus Abstract

University of Georgia Graduate School:

- Writing a Literature Review
- Finding the Sources to Build a Literature Review
- Finishing the Literature Review: Overcoming Obstacles
- Introduction to the Scholarship of Teaching and Learning Retreat
- Graduate Portfolio in Community Engagement Workshop
- Writing Grants: How to Identify, Target, and Sell Your Research to Funding Agencies
- National Science Foundation Graduate Research Fellows Program Workshop

Affiliations/Memberships

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| • American Society of Microbiology | 2017-2022 |
| • Scientists Engaged in Education Research, UGA | 2016-present |
| • Women in Science, UGA | 2014-present |
| • Graduate Students and Postdocs in Science, UGA | 2013-2019 |
| • Waynesburg University Honors Academy | 2009-2013 |
| • Gamma Sigma Epsilon (National Chemistry Honor Society) | 2011-2013 |

Service

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| • Facilitator for the Non-Tenure Track Faculty Learning Community | 2022-present |
| • Microbiology Undergraduate Affairs Committee member | 2021-present |
| • Biology Curriculum Committee member | 2021-present |
| • Program coordinator for the UGA Microbiology Peer Assistant Program | 2021-present |

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- Faculty advisor for UGA Women in Science organization 2020-present
- Scientists Engaged in Education Research Executive Committee: Co-Chair of events planning 2024-present
- Judge for microbiology graduate student three minute thesis competition 2024
- STEM day outreach event presenter at Burks Elementary School 2024
- Faculty Search Committee for Microbiology Lecturer 2023
- Georgia Science & Engineering Fair judge 2021
- Served on the Faculty Engagement and Contribution revision committee 2020
- Served on the Microbiology Graduate Advisory Committee 2019
- Served as a reviewer for the travel grant applications for Scientists Engaged in Education Research 2018
- Helped run fundraising event for Women in Science grant to fund childcare for mothers traveling to conferences 2017
- Science fair project mentor for ASPIRE: Advancing STEM participation through Inspiring Research Experiences 2017
- Oconee county trail maintenance volunteer 2016
- Northeast Georgia Regional Science and Engineering Fair Judge 2014, 2015, 2016
- Judge for local middle and high school science fairs 2014, 2015
- Produced a promotional video for UGA faculty to encourage service-learning in STEM disciplines 2014
- Helped 4th and 5th graders design science fair projects at Colham Ferry Elementary School 2013
- Rivers Alive: community river clean up volunteer 2013, 2016, 2017, 2018
- Dawg Day of Service: grave yard clean up project 2013
- Organized and executed science lab demo for high school with limited science education 2013
- Community Day at LCC international university: Fixed up mission house in Klaipeda, Lithuania 2012
- Short term missions trip to Jamaica with Mustard Seed Communities 2012
- American Cancer Society Relay for Life Volunteer 2010, 2011, 2012, 2013