

Julie Grainy Curriculum Vitae

University of Georgia ♦ Biological Sciences Building room 214B ♦ Athens, GA 30602-2605

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Education

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

Teaching Experience

- **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

- **Introductory Microbiology Lab II Teaching Assistants** 2020-present
Supervised and mentored 13 graduate Teaching Assistants and 5 Microbiology Undergraduate Lab Assistants
- **Introduction to Microbiology Teaching Assistants** 2021-present
Supervised and mentored 6 graduate Teaching Assistants and 3 undergraduate Peer Learning Assistants
- **Health Care Microbiology Teaching Assistants** 2020-present
Supervised and mentored 7 graduate Teaching Assistants and 42 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** Summer 2011
Research Experience for Undergraduates program
Dr. Keith Henry, Dept. of Pharmacology, Physiology & Therapeutics

Publications

- 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.**, 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 presented at the meeting of American Society for Microbiology Conference for Undergraduate Educators. 2023 November 17-19; Phoenix, AZ 2023
- **Grainy, J**, Walker J. *Incorporating Student Voice Into Program and Course Redesign*. Presentation at the International Teaching and Learning Cooperative Network Lilly Conference. 2022 August 7-10; Asheville, NC. 2022

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- **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

- 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
- 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

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- 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

- University of Georgia, Lecturer of Microbiology 2020-present**
 - Active Learning Summer Institute 2023
 - American Society for Microbiology Conference for Undergraduate Educators 2023
 - Career Everywhere Faculty Program 2023
 - 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
 - Relationship Rich Education keynote with Dr. Peter Felton 2022
 - 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
 - 2022

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- National Center for Faculty Development & Diversity webinar: Creating a Culture of Support for All Faculty 2021
- 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

- 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

- 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
- Faculty advisor for UGA Women in Science organization 2020-present
- 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

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- 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