

Graycen Wheeler

SCIENCE COMMUNICATION GRADUATE STUDENT

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

EDUCATION

Master of Science in Science Communication University of California, Santa Cruz • Santa Cruz, CA	Jun 2022 (expected)
Doctor of Philosophy in Biochemistry University of Colorado Boulder • Boulder, CO Research advisor: Dr. Xuedong Liu GPA: 3.85	May 2021
Bachelor of Science in Biochemistry University of Oklahoma • Norman, OK Minor: History of Science Distinction: Magna cum laude GPA: 3.73	May 2015

SCIENCE COMMUNICATION

Science Writing Intern SLAC National Accelerator Laboratory Press & Publications	Sep 2021 - Present
Freelance Science Writer Cosmic Evolution Project	Jun 2021 - Sep 2021
Podcast Host, Editor, & Producer Buffs Talk Science: a podcast featuring science from CU Boulder and beyond Website: buffstalkscience.com	Apr 2018 - Dec 2020
Editor in Chief Science Buffs: a CU Boulder STEM blog Website: sciencebuffs.org	Jan 2021 - Jul 2021
Managing Editor Science Buffs: a CU Boulder STEM blog Website: sciencebuffs.org	Sep 2019 - Jan 2021
Blog Writer & Editor Science Buffs: A CU Boulder STEM Blog Portfolio: sciencebuffs.org/tag/graycen-wheeler	Sep 2017 - Jul 2021
Chair Moderator for eSymposia Keystone Symposia on Molecular and Cellular Biology	Jun 2020 - Jul 2021

TEACHING AND MENTORSHIP

General Chemistry I Teaching Assistant University of Colorado Boulder • Boulder, CO 2015 Supervisors: Dr. Susan Hendrickson, Dr. Veronica Bierbaum 2018 Supervisors: Dr. Nabilah Carlon, Dr. Gary Abel	Fall 2015, Fall 2018
Advanced Biochemistry: Metabolism Teaching Assistant University of Colorado Boulder • Boulder, CO Supervisor: Dr. Natalie Ahn	Spring 2016

General Chemistry II Teaching Assistant University of Oklahoma · Norman, OK Supervisor: Dr. Laura Clifford	Spring 2015
Research Mentor University of Colorado Boulder · Boulder, CO Advisees: Cathryn Toomey, Amrita Purkayastha, and Nicholas Gary	2017 - 2021
Chemistry/Biochemistry Teaching Assistant Orientation Leader University of Colorado Boulder · Boulder, CO	2016 - 2018

RESEARCH

Graduate Research Assistant Advisor: Dr. Xuedong Liu <ul style="list-style-type: none"> Characterized adherens junction-mediated autocrine/paracrine cell signaling along the TACE/TGF-α/EGFR axis in keratinocytes using genetic and small molecule perturbations to study cell motility and ERK signaling via fluorescence microscopy Performed genomic analysis on brown and beige adipocytes after treatment with a novel browning agent using DNA microarray Studied the upregulation of pro-survival protein CLPTM1L in colon cancer cell lines upon treatment with various drugs using qRT-PCR, fluorescence microscopy, and cell survival assays 	2016 - 2021
Undergraduate Research Assistant Advisor: Dr. Ann H. West <ul style="list-style-type: none"> Purified mutant protein components of the Ypd1/Sln1 hybrid two-component system to study the kinetics of this osmotic stress response pathway in <i>C. glabrata</i> and <i>S. cerevisiae</i> 	2013 - 2015

SCIENTIFIC PUBLICATIONS

- Wheeler GE, Purkayastha A, Bunker EN, Bortz DM, Liu X. Protocol for analysis and consolidation of TrackMate outputs for measuring two-dimensional cell motility using nuclear tracking. In press at *Journal of Visualized Experiments*, 2021.
- Bunker EN*, Wheeler GE*, Chapnick DA, Liu X. Suppression of alpha-catenin and adherens junctions enhances epithelial cell proliferation and motility via TACE-mediated TGF- α autocrine/paracrine signaling. *Co-first author. *Molecular Biology of the Cell*, 2021. <https://doi.org/10.1091/mbc.E19-08-0474>
- Smallegan MJ, Shehata S*, Spradlin S*, Swearingen A*, Wheeler G*, Das A, Corbet G, Nebenfuehr B, Ahrens D, Tauber D, Lennon S, Choi K, Huynh T, Wieser T, Schneider K, Bradshaw M, Lai M, Baskin J, Read T, Demasi J, Hynes-Grace M, Timmons, Rinn JL. Genome-wide binding analysis of 195 DNA binding proteins reveals "reservoir" promoters and human-specific SVA-repeat family regulation. *Co-second author. *PLOS One*, 2021. <https://doi.org/10.1371/journal.pone.0237055>
- Sanchez GJ, Richmond PA, Bunker EN, Karman SS, Azofeifa J, Garnett AT, Xu Q, Wheeler GE, Toomey CM, Zhang Q, Dowell RD, Liu X. Genome-wide dose-dependent inhibition of histone deacetylases studies reveal their roles in enhancer remodeling and suppression of oncogenic super-enhancers. *Nucleic Acids Research* 46(4): 1756-1776, 2018. <https://doi.org/10.1093/nar/gkx1225>

SCIENTIFIC PRESENTATIONS

Summer Multicultural Access to Research Training (SMART) Program University of Colorado Boulder · Boulder, CO Invited workshop leader, science communication workshop	Jun 26, 2020
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Signaling & Cellular Regulation Supergroup University of Colorado Boulder • Boulder, CO “Characterizing WKG-133, a novel fat-browning agent”	Oct 28, 2019
Biochemistry Departmental Graduate Student Seminar University of Colorado Boulder • Boulder, CO “A quest to develop a high-throughput screen protocol for fat-browning agents”	Aug 7, 2019
Teen Science Café University of Colorado Boulder • Boulder, CO Invited speaker for science speed dating presentation	Apr 20, 2019
Women in Science & Engineering Science Communication Symposium University of Colorado Boulder • Boulder, CO Invited panelist for podcasting panel discussion	Mar 15, 2019
Nerd Nite Outback Saloon • Boulder, CO “Drug resistance is futile”	Dec 3, 2018
STEMinar University of Colorado Boulder • Boulder, CO “Understanding cell signaling to fight cancer drug resistance”	Oct 11, 2018
Biochemistry Departmental Graduate Student Seminar University of Colorado Boulder • Boulder, CO “Understanding the upregulation of pro-survival protein CLPTM1L upon cancer drug treatment”	Jul 11, 2018
Signaling & Cellular Regulation Supergroup University of Colorado Boulder • Boulder, CO “Understanding the upregulation of pro-survival protein CLPTM1L upon cancer drug treatment”	Mar 19, 2018
ASBMB Poster Session: Chromatin Structure, Remodeling and Gene Expression ASBMB EB Annual Meeting • San Diego, CA “Histone deacetylase inhibition leads to dose-dependent suppression of oncogene-associated super-enhancers.”	Apr 22, 2018
Biochemistry Departmental Retreat YMCA of the Rockies • Granby, CO “Bringing you into the Liu-p: Research highlights from the Liu lab”	Oct 14, 2017

LEADERSHIP AND COMMUNITY

CU Boulder Department of Biochemistry Diversity, Equity, and Inclusion Graduate Council Founding Member and Communications Officer	2020 - 2021
ComSciCon Flagship Programming Organizer	2020
ComSciCon Rocky Mountain West Chairperson/ Lead Organizer	2019
ComSciCon Rocky Mountain West Organizer	2018
Ignite Boulder Selected Speaker Talk title: “How I learned to stop worrying and awoooooo” Video: youtu.be/Sc4XvoSLQzs	Fall 2019
Engineering Experiences Science Coach	Fall 2016
Norman Regional Hospital Volunteer	Fall 2014 – Spring 2015

HONORS AND AWARDS

CASW Taylor/ Blakeslee Graduate Fellow	2021 - 2022
Award for Innovation in Service to the CU Boulder Department of Biochemistry	2021
NIH Signaling and Cellular Regulation Graduate Trainee	2016 - 2018
CU Boulder Award for Graduate Teaching Excellence	2015
National Merit Scholar	2011 - 2015
Oklahoma State Regents Academic Scholar	2011 - 2015

PROFESSIONAL DEVELOPMENT

ComSciCon Flagship Attendee University of California San Diego • San Diego, CA	July 2019
Science Speak Easy Attendee University of Colorado • Boulder, CO	February 2019
ASBMB Experimental Biology Meeting Attendee San Diego, CA	April 2018
American Association for the Advancement of Science Member	
American Society for Biochemistry & Molecular Biology Member	

ADDITIONAL SKILLS

Programming proficiency in MATLAB, Linux, R, JavaScript, CSS, and HTML; Experience with remote team projects via GitHub; Software proficiency in Audacity/Audacity, Affinity Designer/Audacity, Affinity Photo/Audacity Photoshop; Language proficiency in German and classical Latin

INTERESTS AND DELIGHTS

Playing tabletop role-playing games, writing goofy movie reviews, solving crossword puzzles, roller skating badly, and trying to get my cat to sit next to me