

GRACE GUSTAFSON

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EDUCATION

Aug 2022-present • University of Colorado Anschutz Medical Campus, Aurora, Colorado

◇ **PhD Student, Molecular Biology**

May 2022 • Arizona State University, Tempe, Arizona

◇ **BS, Biological Sciences, Honors: summa cum laude**

EXPERIENCE

2017 – 2022 **UNIVERSITY OF WISCONSIN-MADISON DEPARTMENT OF MEDICINE**

*Undergraduate Research Assistant, Laboratory of Dr. Rozalyn Anderson
Madison, Wisconsin*

- Contribute to lab work including biological wet laboratory techniques, culturing cells, troubleshooting, data analysis, and scientific communication for research projects on aging and caloric restriction
- Capture histological images, extracted and analyzed data in ImageJ
- Wrote and revised sections of 4 manuscripts, visualized data for publication

2016 – 2018 **RENSELAER POLYTECHNIC INSTITUTE**

*Undergraduate Student
Troy, New York*

- Completed 66 credits towards a BS in Bioinformatics & Molecular Biology
- Member of AIChE Society for Biological Engineering (*current member*)
- Relevant courses: Molecular Biology, Biostatistics, Organic Chemistry, Calculus, Computer Science I

2016 – 2018 **RENSELAER POLYTECHNIC INSTITUTE DEPARTMENT OF BIOLOGY**

*Undergraduate Research Assistant, Laboratory of Dr. Blanca Barquera
Troy, New York*

- Assisted a graduate researcher studying redox biochemistry and bioenergetics of *B. fragilis* and *V. cholerae* using NMR, spectroscopy, HPLC, and bioinformatics tools including MSAs and Geneious for protein modeling
- Executed general lab tasks including autoclaving, cleaning glassware, and making solutions

2015 – 2016 **UNIVERSITY OF WISCONSIN-MADISON DEPARTMENT OF HORTICULTURE**

*Biotechnology Youth Apprentice, Laboratory of Dr. Phillip Simon
Madison, Wisconsin*

- Performed general lab cleaning duties as well as tissue sampling, DNA and sugar extractions, HPLC sample preparation, imaging, and fieldwork

SKILLS & CERTIFICATIONS

- *Biological lab techniques:* good laboratory practice, DNA/RNA/protein (electrophoresis, Western blotting, extractions, PCR), sterile microbiology technique, cell culture, viral production, cloning, histological cryosectioning & staining, and image analysis
- Knowledge of Microsoft Office, Adobe Illustrator, Adobe Photoshop, ImageJ, R for data science
- Biosafety and HIPAA techniques and training

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- Received Wisconsin Department of Workforce Development Certificate of Occupational Proficiency in Biotechnology, 2016

PUBLICATIONS

ORCID: 0000-0001-8343-4493

- Published** Timothy W. Rhoads, Josef P. Clark, **Grace E. Gustafson**, et al. "Molecular and Functional Networks Linked to Sarcopenia Prevention by Caloric Restriction in Rhesus Monkeys." *Cell Systems*, Volume 10, Issue 2, 2020
- Priya Balasubramanian, Anne E. Schaar, **Grace E. Gustafson**, et al. "Adiponectin receptor agonist AdipoRon improves skeletal muscle function in aged mice." *Elife*, Volume 11, e71282, 2022
- Alex B. Smith, Jonah P. Schill, Ruth Gordillo, **Grace E. Gustafson**, et al. "Ceramides are early responders in metabolic syndrome development in rhesus monkeys." *Scientific Reports*, Volume 12, Article 9960, 2022
- In revision** Samantha Wright, **Grace E. Gustafson**, et al. "Caloric restriction in primates affects glucoregulation and insulin signaling in the brain."

POSTER PRESENTATIONS

- Lauren A. Gandy, **Grace E. Gustafson**, et al. "Implications of different quinone redox carriers for anaerobic and novel aerobic respiration of the gastrointestinal microbe *Bacteroides fragilis*." Poster presented at Rensselaer Polytechnic Institute Chemistry and Chemical Biology Graduate Research Symposium & Poster Session, Troy, NY. 14 Nov. 2018
- **Grace E. Gustafson**, Alina Lee. "The Dog Genome: A New Look at How the Genome Expresses Temperament Across Different Dog Breeds." Poster presented at Arizona State University Functional Genomics BIO 440 Poster Session, Online. 22 Nov. 2021