

Remington R. Motte

Adjunct Instructor, Utah Valley University
Lab Technician, Rocky Mountain Laboratories
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Education

See page 3 for relevant courses

BS Utah Valley University, Orem May 2023
Department of Biology
Independent Project: Investigating the relationship between DSCAM evolution and arthropod sociality.
Advisor: Dr. Carl Hjelman

Research Experience

See page 3 for relevant skills

Research Positions

Independent Researcher, Hjelman Lab Spring 2022-Present
Advisor: Carl Hjelman, PhD, Hjelman Lab, Utah Valley University
Investigating: Using comparative phylogenetics to investigate the relationship between brain development genes in neuron number in vertebrates and cephalopods, and sociality in arthropods.

- Developed and implemented independent research project
- Utilized various phylogenetic tree reconstruction methods
- Use of comparative phylogenetic analyses and programs
- Use of molecular biological software

Research Assistant, Brook Lab Spring 2023-Present
Advisor: Lauren Brooks, PhD, Brook Lab, Utah Valley University
Investigating: Studying the evolution of biocide resistance and identifying mutated genes in antibiotic resistant bacteria

- Bacterial culturing
- ZoI and CFU testing
- Identifying mutant genes
- Bash script writing and pipelining

Presentations

*Presenting author, ^PPoster presentation, ^OOral presentation

2024

***R. Motte**, C. Hjelman ^OAccelerated Rates of Evolution in hymenopteran DSCAM genes
-Utah Conference on Undergraduate Research Poster Presentation, Utah Valley University

2023

***R. Motte**, C. Hjelman ^OThe evolution of an undergraduate independent research project: Literature searches, data mining, and open-source programs to investigate a gene related to sociality.
-Entomology Society of America 2023 National Conference Invited Oral Presentation

***R. Motte**, L. Brooks ^PBacteria has Thick Skin: Biocide Resistance in Members of Staphylococcus.
-Spring 2023 UVU Biology Department Research Poster Day, Utah Valley University.

***R. Motte**, C. Hjelman. ^OInvestigating the relationship between DSCAM evolution and arthropod sociality.
-Entomology Society of America 2023 Pacific Branch Meeting Accepted Oral Presentation

***R. Motte**, C. Hjelman. ^PSmart Animals and Social Critters: The relationship of Protocadherin evolution and neuronal diversity and the impact of DSCAM evolution on sociality.
-Utah Conference on Undergraduate Research Poster Presentation, University of Utah.

2022

*S. Morreal, *S. Smith, *C. Monsen, ***R. Motte**, N. Hughes, and O. Kopp. ^PEffects of Varying pH on *Pisum sativum*.
-Fall 2022 UVU Biology Department Research Poster Day, Utah Valley University.

Grants/Awards/Honors

Grants

Scholarly and Creative Activities Council Student Dissemination (\$1,481)	2024
Student Activities Committee Grant Dissemination Grant (\$470)	2024
Scholarly and Creative Activities Council Student Dissemination (\$1,354)	2023

Awards

Salutatorian of Pinnacle Canyon Academy Scholarship (\$500)	2018
Scholar Athlete of the Year of Pinnacle Canyon Academy Scholarship (\$300)	2018

Honors

Dean's List, Utah Valley University	Fall of 2018, Spring of 2023
Salutatorian, Pinnacle Canyon Academy	2018

Teaching Experience & Outreach

Teaching Experience

Principles of Chemistry Adjunct Instructor , Utah Valley University	Spring 2024
• Instruct undergraduate non-chemistry major students in intro chemistry principles and laboratory techniques.	
Zoology Teaching Assistant , Utah Valley University	August 2022-May 2023
• Grade undergraduate student assignments and answer questions related to intro zoology	
Chemistry Teaching Assistant , Utah Valley University	August 2022-May 2023
• Grade undergraduate student assignments and answer questions related to intro chemistry	
Elementary Teachers Assistant , Pinnacle Canyon Academy	January 2018-May 2018
• Assist instructor with teaching elementary students math, reading and science	

Outreach

Entomology Children's Outreach Event, Springville Library	June 2023
Entomology Children's Outreach Event, Spanish Fork Library	June 2023
Utah Valley University's Darwin Day Event	February 2023

Professional Experience

Job position

Lab Technician	March 2024- Present
Chemistry Department, Rocky Mountain Laboratories	
Description: Run metabolic and blood cell panels, analyzer maintenance, inventory management.	
Lab Assistant	January 2024-March 2024
Chemistry Department, Rocky Mountain Laboratories	

Description: Help lab technicians run metabolic panels, blood cell panels and other medical tests as well as resulting.

Stockroom & Lab Assistant

August 2022-December 2023

Chemistry Department, Utah Valley University

Description: Assisting in moving lab equipment, and setting up labs (Principles of Chemistry and Analytical Chemistry). Preparing chemical reagents, ordering chemicals, and assisting in disposing of chemicals, etc.

Direct Service Provider

May 2022-August 2022

Rise Services, Orem, UT

Description: Helping disabled kids participate in summer activities and work on their own individual goals

Retail Sales Associate

July 2018-May 2022

Big 5 Sporting Goods

Description: Assist customers in a timely and friendly manner with sporting goods needs.

Academic Affiliations/Clubs

Academic Affiliations

Entomological Society of America member 2023-present
Utah Valley University Evolution and Bioinformatics Club member Fall 2022-present

Clubs

UVU Co-Ed Volleyball Fall 2022-present
UVU Bachata Dance Club Spring 2023

Relevant Courses

- Cell Biology
- Molecular Biology
- Microbiology
- Neuroscience
- Biological Anthropology
- General Ecology
- Evolution
- Genetics
- Genomics
- Bioinformatics, Data Skills
- Principles of Chemistry I & II
- Organic Chemistry I&II
- Biochemistry
- Principles of Statistics

Skills

- Development of chemical inventories
- Analyzer maintenance
- Preparation of buffers and solutions
- Supercomputer familiarity
- R for statistics and data visualization
- Bayesian phylogenetic methods
- Basic bash scripting
- Culturing bacteria
- Biocide resistance testing
- Galaxy