

Emma JoAnn Smith

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(785)-502-0655

Fort Collins, CO

REFERENCES

Available on request.

CERTIFICATIONS

- Certified Nursing Assistant (2021)
- Certified Medication Aide (2021)
- Biosafety Level 3 Laboratory Clearance (2023)
- IACUC Animal Handling (2023)

SKILLS

- Formatting posters, flyers, infographics, etc.
- Medical POS systems (Epic and Point Click Care)
- Basic Lab Equipment
- Laboratory report and documentation upkeep
- Media preparation
- Laboratory Math (CFU determination, weight-volume concentration, PCR math, serial dilutions)
- PCR and Gel Electrophoresis
- Gram Staining
- Aseptic Technique

EDUCATION

Bachelor of Veterinary Medicine and Biomedical Sciences

Colorado State University

Anticipated Graduation Date May 2026

Relevant Coursework

- *Pathology of Human and Animal Disease*
- *Eukaryotic Microbiology*
- *Research Methods*
- *General Chemistry Laboratory*
- *General Biology Laboratory*
- *Environmental Health*
- *Organic Chemistry and Laboratory*

HONORS

- KEY Communities Non-Residential Student of the Year (2021-22)
- Undergraduate Student Poster Award - Mountain West Society of Toxicology Conference 2023

WORK EXPERIENCE

Lab Manager

Montrose Translational Health Lab · January 2024 - Present

- Regularly participating in meetings to discuss ongoing projects and form ideas for future endeavors.
- Maintaining documentation of current protocols and experiments.
- Visually reporting results in various forms including posters, figures, and powerpoint presentations.
- Mentoring other students and peers to learn new skills in the lab.
- Communicating with bioengineers and materials providers to coordinate development of whole body exposure chamber.
- Investigating transcriptomic changes in prefrontal cortex after wildland firefighting-relevant exposures through integrated analysis of publicly available datasets
- Writing surveys to enlist wildland firefighters in novel studies measuring parameters of reproductive health on- and off-season.

POSTER PRESENTATIONS

- MIP 150 Spring 2022
Minisymposium:
Exploration of the Antibiotic Profile of a Psuedomonas Isolate.
- TILT OURA Lab Cohort Seminar:
Effect of elevation on anaerobic capacity of soil microbes
- ERHS Symposium Spring 23: *Potential effects of microplastics in the human body*
- Mountain West Society of Toxicology Fall 23: *Optimization of filter extraction and downstream toxicologic assays to compare ambient vs. laboratory generated wildfire smoke samples*
- CVMBS Research Day Symposium and Society of Toxicology Conference 2024: *An integrated analysis of the transcriptomic effects observed following wildland firefighter relevant occupation exposures in the pre-frontal cortex of male mice*

Student Researcher

Montrose Translational Health Lab · May 2023 - January 2024
Tjalkens Neurotoxicology Lab · March 2024 - Present

- Conducted a scoping literature review of occupational hazards and their effects on wildland firefighters fertility.
- Dosed RAW267.4 mouse lung macrophages to explore toxicity of wildfire smoke particulate via cell viability assays and protein quantification (ELISA).
- Attending conferences to present current research and cultivate collaborations with adjacent laboratories.
- Extracting wildfire smoke particulate matter from various filter types for utilization *in vitro* and *in vivo*.
- Sectioning, staining, and imaging model central nervous tissue to characterize mechanisms of wildfire smoke-related pathology via immunofluorescence.
- Quantifying protein counts using chemiluminescence on Protein Simple Wes equipment.

Laboratory Support and Materials Transfer

Greg Robertson TB Lab · January 2023 - Present

- Maintained organization and cleanliness of a shared lab.
- Updated Standards of Protocols as needed.
- Produced large-scale batches of enriched media and filled Viable Counts of materials needed for experimentation.
- Transferred materials from CSU Main Campus to the High-Containment Laboratories at the CSU Foothills Campus.
- Managed other members of Lab Support to ensure maximum efficiency and accountability within the lab.

Undergraduate Learning Assistant

CSU--Introduction to Research Methods · January 2022 - May 2022

- Assisted a small group of students with daily practice of research methods and protocols.
- Instructed class on essential laboratory math skills.
- Curated lectures and worksheets to enhance student understanding.
- Provided feedback on various student assignments and offered individualized critiques and advice.

VOLUNTEER WORK

- CSU Homecoming Microbiology Booth
 - October 2022
- Women in Science Outreach Seminar
 - March 2024

MEMBERSHIPS

- KEY Communities
 - *Member 2021-22*
- Microbiology Mentoring Pods
 - *Member 2021-22*

Undergraduate Student Researcher

CSU TILT Oura Lab · October 2022 - December 2022

- Practiced laboratory skills such as PCR, media preparation, and spectrometry to proficiency.
- Collaborated with peers to learn new skills and write protocols for individual experiments.
- Compared anaerobic capacity of soil microbes from various elevations by cultivating bacteria in various levels of oxygen deprivation.
- Communicated scientific data and experimental findings via a poster and presented my work to my supervisors, peers, and visitors.

Certified Nursing Assistant

One James Health · March 2022 - July 2023

Poudre Valley Hospital · March 2022 - August 2022

Poudre Canyon Health and Rehab · July 2021 - March 2022

- Facilitated halls with 30+ residents assisting with activities of daily living such as dressing, washing, brushing teeth, eating, and other various cares.
- Charted daily intake and output of patients as well as levels of mobility and any other changes in condition while reporting to the other members of the care team as necessary.
- Collected various specimens for laboratory testing.
- Received additional training to facilitate supra-pubic catheter changing and regular manual bowel programs.
- Joined a specialized team of medical professionals to coordinate new protocols and visual signs to reduce patient falls on unit.
- Provided individualized care for patients in home settings.
- Prevented nosocomial bacterial infections through proper care and disinfection of central lines and internal catheters.

Sales Associate (floor)

Brown's Shoe Fit Co · December 2019 - July 2021

August 2023 - Present

- Assisted 100s of customers to find specialty shoes and insoles that best fit their pain, alignment, and lifestyle accommodations.
- Built personal relationships with customers to provide the highest quality service.
- Managed inventory and stocking duties as well as social media presence within a small business.