

AKANKSHA SINGH

Ogden, UT | (801) 821-3160 | akanksha6147@gmail.com | linkedin.com/in/akanksha-singh-5b2733282

PROFESSIONAL SUMMARY

Detail-oriented laboratory science professional with hands-on bench experience in cell culture, CRISPR gene editing, microbial and viral assays, and drug susceptibility testing, gained through two years of undergraduate research in medical microbiology. Skilled in specimen handling, aseptic technique, quality-control documentation, and SOP adherence, with a consistent track record of accurate, reproducible results and conference-level research presentations. Combines rigorous laboratory training with strong service, mentoring, and communication experience to bring reliability and precision to a clinical or research laboratory setting.

SKILLS

Clinical & Laboratory Compliance: Specimen handling & processing • aseptic technique • quality control & documentation • laboratory safety (OSHA-aligned) • confidentiality & data integrity (HIPAA-aware) • SOP adherence • accurate record-keeping & reporting

Technical & Bench Skills: Cell culture (HeLa, A375) • CRISPR gene editing • viral infection assays • drug susceptibility / pathogen-clearance assays • flow cytometry • light microscopy • PCR • DNA gel electrophoresis • DNA extraction • microtome • biofilm & microbial research techniques

Library & Information Systems: Library of Congress Classification • circulation services • Integrated Library Systems (ILS)

Languages: English • Hindi • Punjabi • Spanish • Nepali

EDUCATION

Weber State University — Ogden, UT

Expected Spring 2027

Bachelor of Science, Medical Microbiology | Minor in Chemistry | Minor in Biology

- Certificates: Certified Program Evaluator (CPE); NASPA Peer Educators Certificate
- Scholarships: Barbara and Tanner Scholarship, Louis F. Moench Scholarship, EAST Dean's Scholarship, Student Affairs Scholarship, Signpost Scholarship

RESEARCH EXPERIENCE

Undergraduate Research Assistant, Department of Microbiology

Mar 2024 – Present

Weber State University, Ogden, UT | Faculty Advisor: Dr. Daniel Clark

- Investigate six CDC-identified candidate drugs against *Naegleria fowleri*, designing and running drug-susceptibility assays with culture techniques and flow cytometry to evaluate potential treatments for primary amoebic meningoencephalitis (PAM).
- Used fluorescence-bead assays to monitor single-drug and combination-drug efficacy; identified Amphotericin B, Azithromycin, and Nitroxoline as consistently reducing amoeba feeding activity on HeLa cell line.
- Perform CRISPR-mediated gene editing and viral infection assays for an ongoing phage-therapy research program targeting *Staphylococcus aureus* biofilms, following validated protocols for biological sample processing and testing.
- Maintain detailed laboratory records and quality-control documentation to support data integrity and reproducibility across all experiments.
- Assisted with preparation of a manuscript for journal submission, consolidating current and historical laboratory findings.

PRESENTATIONS

- Midavaine, A., Ford, I., Dinh, K. & Clark, D. N., Singh, A. "Feeding Activity of The Brain-Eating Amoeba: Blocking *Naegleria fowleri* with Treatment Drugs." Oral Presentation, Utah Academy of Sciences, Arts, & Letters Annual Conference, Utah State University, March 2026.
- Midavaine, A., Ford, I., Clawson, B. K., Singh, A., Calla, L. M. & Clark, D. N. "Feeding Activity of The Brain-Eating Amoeba: Blocking *Naegleria fowleri* with Treatment Drugs." Poster Presentation, American Society for Microbiology (ASM) – Intermountain Branch Conference, May 2026.
- Midavaine, A., Ford, I., Clawson, B. K., Singh, A., Calla, L. M. & Clark, D. N. "Feeding Activity of The Brain-Eating Amoeba: Blocking *Naegleria fowleri* with Treatment Drugs." Poster Presentation, Research and Engagement Symposium, Weber State University, December 2025.
- Delivered an elevator pitch on current research at Weber State University's Research and Engagement Symposium.

PROFESSIONAL EXPERIENCE

User Services Assistant I, Stewart Library

Aug 2025 – Present

Weber State University, Ogden, UT

- Assist patrons with research resources and technology support, resolving inquiries accurately and professionally at a high-traffic service point.

- Train and mentor new student employees on library systems, service standards, and daily procedures.
- Maintain accurate operational records and support day-to-day circulation and reference functions.

User Services Assistant II, Stewart Library

Aug 2023 – Aug 2025

Weber State University, Ogden, UT

- Assisted patrons with borrowing, returning, and locating materials, prioritizing accuracy under time pressure at a high-volume circulation desk.
- Organized and shelved materials using the Library of Congress Classification System, maintaining consistent accuracy across the collection.
- Maintained circulation records and supported daily library operations in a fast-paced, patron-facing environment.

Student Research Assistant, Stewart Library

Sep 2022 – Aug 2023

Weber State University, Ogden, UT

- Assisted library faculty with research and data collection projects, conducting literature searches across multiple academic databases.
- Organized research materials and supported ongoing faculty research and administrative needs.

Peer Mentor, Peer Mentor Program

Oct 2023 – May 2024

Weber State University, Ogden, UT

- Mentored first-year students on academic goal-setting, time management, and study strategies to support their transition to college-level coursework.
- Collaborated with faculty and staff to connect mentees with campus resources and student success initiatives.

LEADERSHIP & SERVICE

- International Student Senator, WSUSA (August 2026 – Present)
- Officer, American Society for Microbiology (ASM) Student Chapter / Microbiology Club, Weber State University (August 2026 – Present)
- Officer, International Students Committee, Weber State University (August 2026 – Present)
- Supporting Officer, Microbiology Club, Weber State University (Apr 2025 – Present)
- Member, Math Factor Club, Weber State University (Aug 2026 – Present)
- Social Justice Advocate for Advocacy and Unity, WSUSA (May 2024 – May 2025)
- International Student Unity and Diversity Chairman, WSUSA (Apr 2023 – May 2024)
- Marketing Chair, International Student Club, Weber State University (Aug 2023 – May 2024)
- Volunteer Mentor, Mount Ogden Junior High, Ogden, UT (Dec 2023 – May 2024)
- Volunteer, Welcome Baby Program, United Way of Northern Utah, Ogden, UT (Oct 2023 – Aug 2025)