Aidan Mulligan

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EDUCATION

University of Utah – The John and Marcia Price College of Engineering Salt Lake City, UT
Degree: Honors Bachelor of Science in Chemical Engineering May 2028
GPA: 3.83
Achievements: University of Utah President's Scholarship, Phillip A. and Elizabeth Dougall Endowed Scholarship, Dean's list

SKILLS/COURSEWORK

Technical: Python, Java, CAD, 3D printing, Microsoft Office Suite, Microcontrollers
Laboratory: SEM Microscopy, HPLC Purification, UV/Vis Spectroscopy, Protein/Chemical Synthesis
Notable Courses: Process Engineering, Thermodynamics, Statistics, Object-Oriented Programming, Numerical Methods, Organic Chemistry, Fluid Mechanics (planned 8/26), Heat Transfer (planned 8/26), Mass Transfer (planned 1/27)

RELATED EXPERIENCE

Utah Center for Renewables, Efficiency, and Workforce (U-CREW) Salt Lake City, UT
Research Assistant Student January 2026-present

- Conduct energy assessments for Utah industrial facilities by performing on-site measurements and evaluations
- Identify energy-reduction recommendations, proposing measures that can reduce facility energy use by ≥10%
- Have recommended $46,000 in yearly energy savings to assessment clients
- Work supported by Department of Energy (DOE) and Environmental Protection Agency (EPA)

STARS Lab, University of Utah Department of Materials Science and Engineering Salt Lake City, UT
Undergraduate Researcher June 2025-September 2025

- Performed literature review for research into high-temperature alloy for rocket engines and other applications
- Studied the microstructural features of high-temperature alloys for aerospace/energy applications

Barrios Lab, University of Utah Department of Biochemistry Salt Lake City, UT
Undergraduate Researcher October 2024-June 2025

- Worked with a team studying the biochemical roles of protein phosphatases in cancer and other diseases
- Performed chemical synthesis and purification to design and test a chemical sensor for SHP2 phosphatase, improving the ease of developing new anti-cancer drugs based on SHP2 phosphatase

Student Researcher June 2023-August 2023

- Characterized unregulated antiviral drugs for feline infectious peritonitis (FIP); findings influenced FDA regulatory changes, making it easier for thousands of cats to access life-saving treatment
- Co-authored a peer-reviewed publication in the American Journal of Veterinary Research based on this research

Metcalf Lab, University of Utah Department of Pharmacology & Toxicology Salt Lake City, UT
Student Researcher June 2022-August 2022

- Investigated the metabolic effects of seizures in a mouse model of a severe epilepsy (Dravet Syndrome)
- Co-authored a peer-reviewed publication which demonstrated potential for future metabolic-based treatments

ADDITIONAL INFORMATION

University of Utah ChemE Car Club Salt Lake City, UT
Team Member August 2024-Present

- Collaborate with peers to design a car, competing in national and regional AIChE-sponsored ChemE Car competitions

Publications:

- Sri Hari, A., Chan, A. M., Scholl, A., **Mulligan, A.**, Camacho, J., Kearns, I. R., Opazo, G. V., Cheminant, J., Musci, T., Goh, M. J., Venosa, A., Moos, P. J., Golkowski, M., & Metcalf, C. S. (2025). Multiomic Analyses Reveal Brainstem Metabolic Changes in a Mouse Model of Dravet Syndrome. *Cells*, *15*(1), 67. https://doi.org/10.3390/cells15010067
- **Mulligan, A. J.**, & Browning, M. E. (2024). Quality assessment and characterization of unregulated antiviral drugs for feline infectious peritonitis: implications for treatment, safety, and efficacy. *American Journal of Veterinary Research*, *85*(3), 1–9. https://doi.org/10.2460/ajvr.23.10.0221

Other Awards:

- National Merit Scholarship, US Presidential Scholar Nominee, Valedictorian, Eagle Scout