

# Highlighting Undergraduate Research at Cal Poly – a High Impact Practice to Promote Student Success

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## Undergraduate Research Snapshot

- 42% of Cal Poly’s senior respondents to the NSSE survey reported participating in undergraduate research
- Cal Poly’s Office of Student Research estimates that more than 5000 Cal Poly students participate in undergraduate research experiences annually
- Cal Poly has 21 centers and institutes that annually offer applied research opportunities for undergraduate students
- Cal Poly’s 2022 Summer Undergraduate Research Program (SURP) had over 400 participants spanning 5 colleges. The College of Engineering’s Multicultural Program (MEP) delivered specialized workshops to encourage students from traditionally marginalized backgrounds to participate in SURP.
- Cal Poly’s Believe, Educate & Empower, Advocate, Collaborate, Nurture (BEACoN) program, designed to educate and empower underrepresented students, supported over 45 undergraduate research projects across 6 colleges
- The Louis Stokes Alliance for Minority Participation in STEM (CSU-LSAMP) provides resources and opportunities for URM students to engage with faculty members and find undergraduate research opportunities on and off campus.
- The work of Cal Poly’s Office of Student Research is shaped and inspired by the “Academic Secret Menu” project of the **ReclaimingSTEM Institute** whose purpose is to “change who leads the scientific enterprise and how they lead by building scientists from across diverse and historically marginalized communities.”

## Soil Science



**Figure 1.** Undergraduate student taking greenhouse gas samples at a vineyard



**Figure 2.** Undergraduate student taking soil samples to assess rangeland soil health



**Figure 3.** Graduate student taking soil samples to assess nitrogen dynamics at a vineyard

## Animal Genomics



**Figure 4.** Three Undergraduate Students presenting at the 2022 International Canadian and American Society of Animal Science conference, Oklahoma, USA

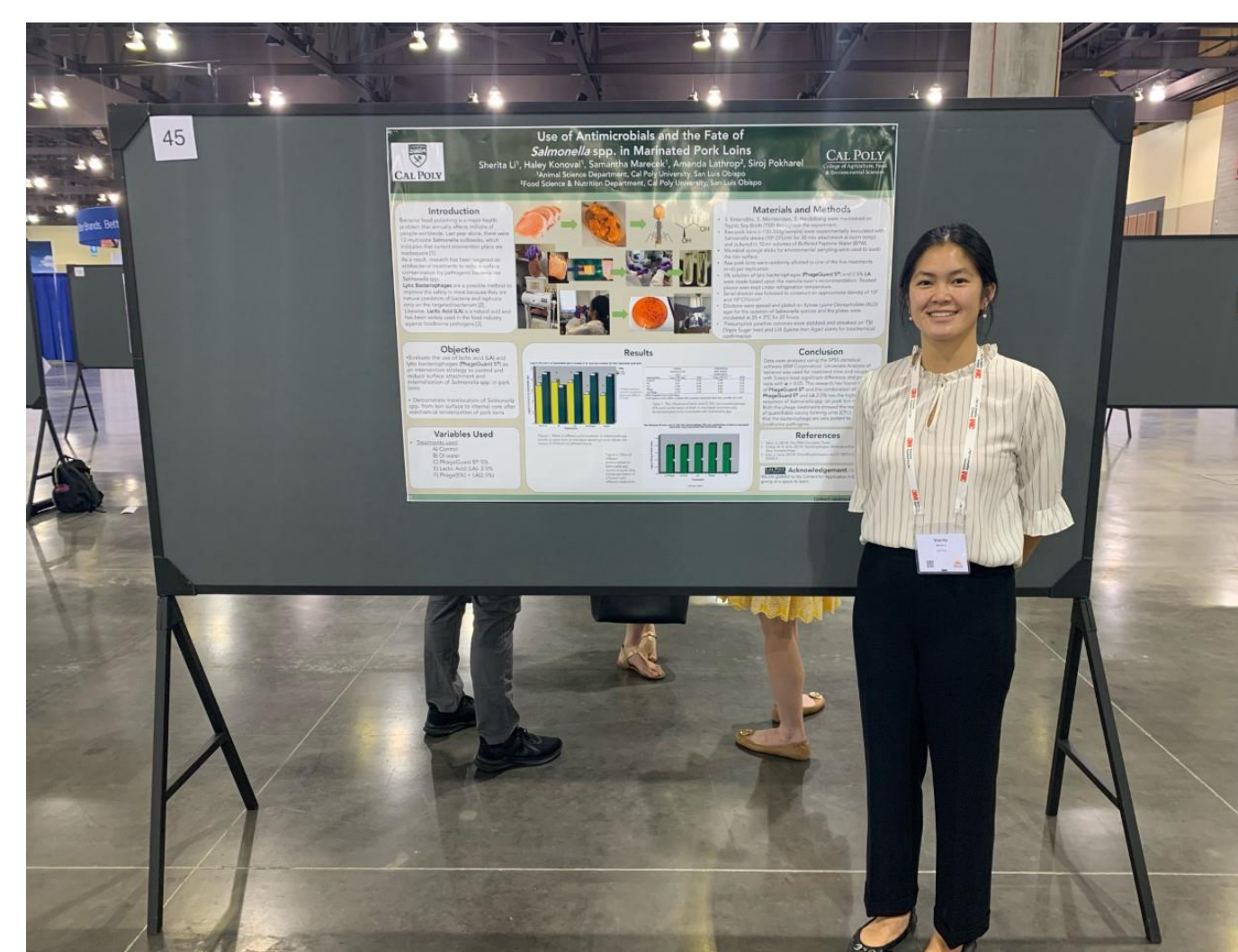
## Food Safety & Microbiology



**Figure 5.** Undergraduate Students presenting at Cal Poly CAFES symposium



**Figure 6.** Industrial cured meats competition by California Association of Meat Processors



**Figure 7.** Graduate Student, presenting in American meat Science Association Conference, Nevada, USA

## Plant Sciences



**Figure 8.** Undergraduate student Evan Tamayo presenting his project at the symposium for the SURP.



**Figure 9.** Undergraduate student Samantha Anderson studying the virulence of a fungal pathogen on grape leaves.

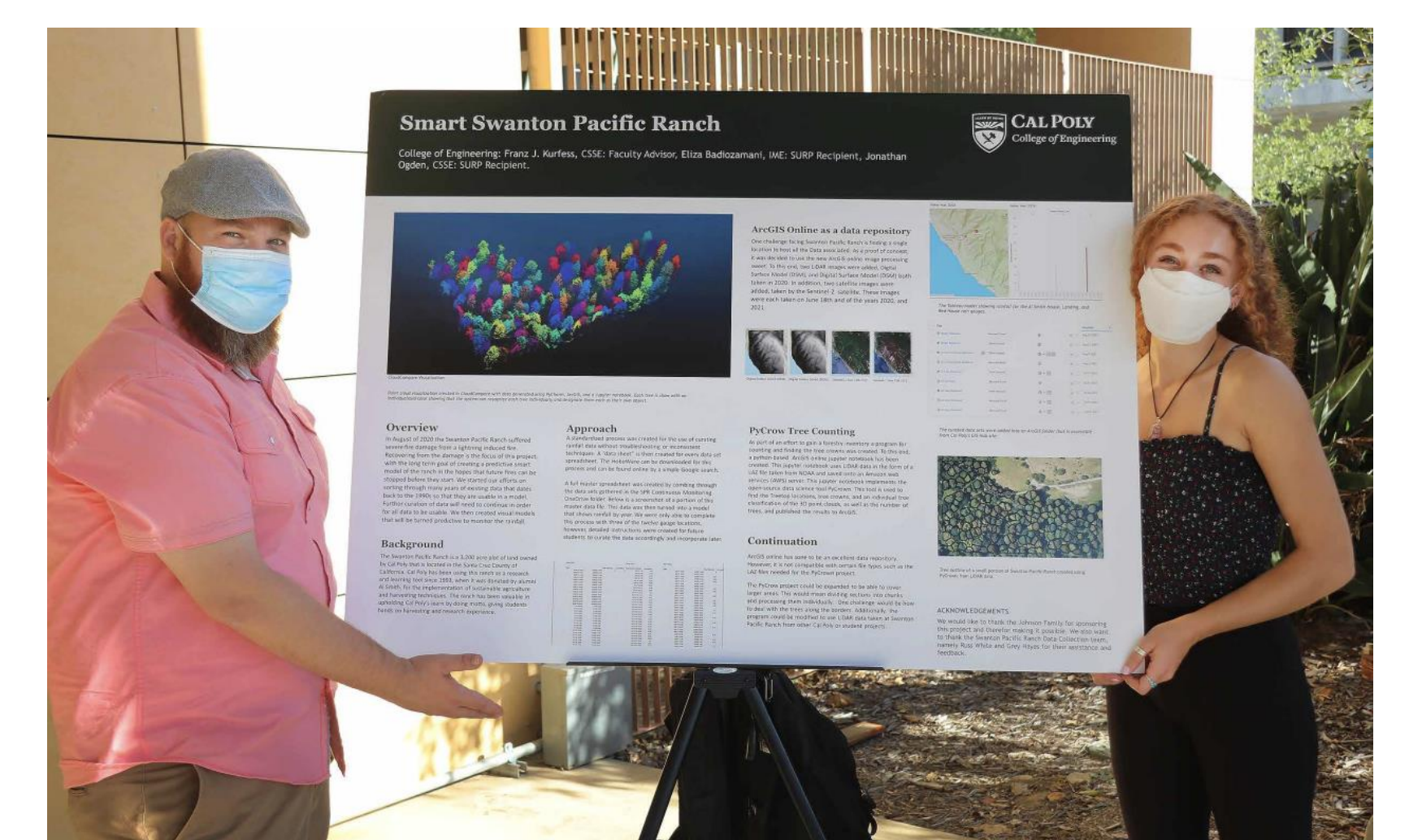


**Figure 10.** Graduate student Reilly Blair and Undergraduate Research Assistant Evan Tamayo rating arugula for downy mildew resistance.

## Computer Engineering



**Figure 11.** Undergraduate students design a space rover



**Figure 12.** Undergraduate students model the effect of fire and rainfall at Swanton Pacific Ranch

## Acknowledgements



❖ We thank our students who gave their consent to publish their pictures in the current poster.