



SARSEF
STAR Lab



COLLEGE OF SCIENCE
Molecular
& Cellular Biology

Students Taking Advantage of Research

Member of the STEM PUSH Network, an NSF INCLUDES Alliance

The STAR Lab is a collaboration between SARSEF (Southern Arizona Research Science and Engineering Foundation) and the University of Arizona (UArizona) Department of Molecular and Cellular Biology that provides mentorship, consultation, research supplies, and lab space for high school students to complete their own authentic research projects.

The STAR Lab matches mentors from all fields of science and engineering with high school students from across Arizona to grow the next generation of scientists and engineers. In addition to one-on-one mentoring on individual research projects, STAR Lab provides cohorts of students with weekly support in science communication: reading, writing and presenting research.

STAR Lab emphasizes & develops several targeted outcomes, including:

- Problem solving and critical thinking skills
- Communication skills, including presenting scientific research & public speaking
- Development of STEM identity
- Sense of belonging & self-efficacy in STEM



Students demonstrate these skills through presenting their research question and experiment publicly at a regional or state science fair or AZ Junior Science and Humanities Symposium.

About the STEM PUSH Network

STEM PUSH, an NSF INCLUDES Alliance, is a national network of pre-college STEM programs who are engaging youth historically underrepresented in STEM to learn & do in-depth, authentic science, and ultimately to persist in STEM through college & beyond. More information available at stempushnetwork.org.



Program Features

STEM Focus:

long term **authentic science & engineering research** in all STEM fields

5-10 hours/week

September through March

50-55 students served each year

3 college credits

earned at UArizona upon completion of STAR Lab

Scholarships are provided

to ensure the minimal program fee is not a barrier to student participation

44% of students receive a scholarship

53% of participants never participated in a STEM experience in the past

50% of participating schools are **Title I schools**

45-50% of students are **underrepresented in STEM**

Alumni have attended institutions including:

- Arizona State University
- Columbia University
- Duke University
- Smith College
- Vanderbilt University
- University of Arizona
- University of San Diego



Provides access to STEM experiences

for racially, ethnically & economically minoritized students, urban and rural, across Arizona

Small cohort meetings each week

with undergraduate STEM students from the University of Arizona for conversation, peer review, and practice in communicating science

Weekly mentoring

with scientists & researchers from partners including:

- University of Arizona
- Roche Tissue Diagnostics
- Pima County Reid Park Zoo
- Other local STEM organizations

STAR Lab

STAR Lab, established in 2019, is a biosafety level 2 (BSL2) lab on the University of Arizona campus. Local students work on campus, meet with their mentors, and use the research facilities in the lab. Other STAR Lab students meet remotely with mentors and conduct their research online or in their school lab space.

STAR Lab builds a community for diverse individuals interested in STEM to learn and explore in culturally sustaining ways. STAR Lab students are encouraged to identify problems that are relevant to their communities. Students participate in college level research projects in a supportive environment and participants gain confidence in their ability to find answers to challenging questions. Many go on to win top awards at local state and international science and engineering fairs.

Students receive university credit for participating and completing research presentations. In addition to meeting weekly with their research mentor, STAR Lab students meet weekly in small cohorts with 3rd and 4th year University of Arizona undergraduate STEM majors for conversation, peer review and practice in communicating science.

View STAR Lab Projects!

Click here for the virtual exhibit hall



- Under Arizona Virtual Science Fairs, select **STAR Lab (2022 & 2023)** from the dropdown menu
- Click Virtual Exhibit Hall
- Enter password: **STARLab**

Connect with STAR Lab!

Contact Amber Folkman at amber@sarsef.org to schedule a visit.

Visit mcb.arizona.edu/outreach/star-lab for additional information.