

Barry Goldwater Scholarship Pathways

The following information is not a checklist or blueprint to winning a national award, but is rather a list of experiences that an individual can pursue and mold to fit their individual interests. Students should not try to “collect” every type of experience, but should work within a defined area of focus and passion. Students should demonstrate a *sustained* commitment and attention to *documenting impact*, whether that is in a field of study, research, or difference made in the community.

Award profile: A scholarship for students seeking a future Ph.D. and *research* careers in natural sciences, mathematics, and engineering. In honor of Senator Barry Goldwater, the scholarship aims to ensure the U.S. produces highly-qualified professionals in the fields mentioned previously. Students planning to enter any medical professional fields should not apply unless their future work heavily focuses on research.

- Students should look to develop sustained research experience in a defined area of research.
- By the time of application, students must demonstrate significant research experience, which includes the development of original ideas. Simple mastery of technique is not enough.
- By the time of application, students must demonstrate the ability to propose new research.
- Students have a 3.8+ GPA.

Notable award winners: Aldo Sepulveda (UTSA, 2018 – Physics), Favour Obuseh (UTSA, 2018 – Biomedical Engineer), Sarah Dibrell (UTSA, 2017 – Biochemistry), America Ruiz (UTSA, 2016 – Biology)

Awardee advice: “Form close relationships with faculty, and take advantage of non-science classes. My ideas haven’t always come to me when I’m thinking about science. Fermenting different topics in my mind, like art and language, has sparked ideas that drove my research.” Mika Sarkin Jain, 2018 awardee

Recommended Prep Programs:

- 1st and 2nd year: NSF Research Experience for Undergraduates (REU) summer programs: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517

The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. Undergraduate student participants in either REU Sites or REU Supplements must be U.S. citizens, U.S. nationals, or permanent residents of the United States. Students do not apply to NSF to participate in REU activities. Students apply directly to REU Sites or to NSF-funded investigators who receive REU Supplements. To identify appropriate REU Sites, students should consult the directory of active REU Sites.

- Amgen Scholars U.S. Program: this program is open to sophomores, juniors, and seniors and takes place at institutions across the US. Students must have completed 3 semesters in college prior to attendance: <http://amgenscholars.com/us-program/>

Recommended Experiences. Bold items represent substantial accomplishments involving significant work. Expectations and viability vary by discipline:

- 1st year: Present at UTSA/Regional undergrad research symposia/Honors College Experiential Learning Fair
- **2nd and 3rd years: Present at a national scientific conference**
- Present at Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)
- Present at UTSA First-Gen Creative Activity & Research Symposium
- **Co-author or author a paper in a nationally peer-reviewed research journal**
- **Conduct independent research projects**
- Join student organizations and Honors Societies in your discipline
- Civic engagement in your field: giving presentations at local high schools and museums
- Peer mentoring in your field

Skill development:

- Which skills do you need to develop for your research?
- Where can these skills be acquired (at a lab at UTSA, in a lab at an REU site? Through coursework inside your major or in the CoS or CoE? Through coursework outside of the sciences?)

Resources: Reading through the Goldwater Foundation's "Scholar Stories" can provide inspiration as to how you want to chart and individualize your path: <https://goldwater.scholarsapply.org/our-scholars/>



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