

SMU Journal of Undergraduate Research

Volume 7 | Issue 1

Article 1

January 2022

Volume 7, Issue 1 Digital Front Matter

Hannah Webb
hnwebb@smu.edu

Follow this and additional works at: <https://scholar.smu.edu/jour>

Recommended Citation

Webb, Hannah (2022) "Volume 7, Issue 1 Digital Front Matter," *SMU Journal of Undergraduate Research*. Vol. 7: Iss. 1, Article 1. DOI: <https://doi.org/10.25172/jour.7.1.3>
Available at: <https://scholar.smu.edu/jour/vol7/iss1/1>

This Other is brought to you for free and open access by SMU Scholar. It has been accepted for inclusion in SMU Journal of Undergraduate Research by an authorized administrator of SMU Scholar. For more information, please visit <http://digitalrepository.smu.edu>.

SMU® Journal of
Undergraduate Research

Cover art: Lizzy Hanna
Hannah Webb

SMU **Journal of
Undergraduate Research**

VOLUME 7 | ISSUE 1 | FALL 2021

Southern Methodist University
Dallas, TX 75205

Sponsored by the SMU Office of the Provost, the Office of Engaged Learning, and
the Central University Libraries.

STAFF

JOURNAL EDITORIAL BOARD

EDITOR-IN-CHIEF

Hannah Webb

SENIOR EDITOR

Jessie M. Henderson

ASSISTANT EDITORS

Thatcher Dunlap

Isabelle Galko

Engie Hamza

Tamal Pilla

Saifiyah Zaki

OFFICE OF ENGAGED LEARNING

DIRECTOR

Jennifer Ebinger

ASSISTANT DIRECTOR

Adam Neal

FACULTY FELLOW FOR
UNDERGRADUATE RESEARCH
PROGRAMS

David Son

SMU Journal of Undergraduate Research (SMU JoUR)

Volume 7 | Issue 1 | Fall 2021

scholar.smu.edu/jour

©2022 *SMU JoUR*. All rights reserved.

SMU UNDERGRADUATE RESEARCH PROGRAMS

The Hamilton Undergraduate Research Scholars Program enables Dedman College's most promising students to collaborate with top faculty researchers and contribute to the creation of knowledge in significant and meaningful ways. Each faculty/student team submits a competitive proposal for the project to the Program Director in response to a call for proposals in August of each academic year. A small number of Hamilton Undergraduate Research Scholar Awards are also made for the summer with a request for applications going out in late April. Awards are up to \$3000/semester with matching funds available from the University Undergraduate Research Program. www.smu.edu/Dedman/DCII/Programs/Hamilton

Robert Mayer Undergraduate Research Fellowships through the Dedman College Interdisciplinary Institute allow students to conduct research integrating two or more fields. Mayer Interdisciplinary Fellows will have access to \$1500 to use for research travel or for other expenses related to the development and completion of their research project. www.smu.edu/Dedman/DCII/Programs/Mayer

John G. Tower Center Student Fellowships provide a gateway for students to pursue work in politics and government. Undergraduate Fellows collaborate closely with faculty to develop research projects that either become published or presented for faculty or professional review. Fellows are accepted during the second semester of their sophomore year and serve as fellows during their junior and senior years. Selection is based on merit and determined by an application and interview process emphasizing ability and interest in research. Each fellow receives a stipend of \$750 per semester for a up to four consecutive semesters, a book allowance for documents related to the independent study project, and support for research expenses. www.smu.edu/Dedman/Research/Institutes-and-Centers/Tower-Center/Students/Tower-Scholars

Maguire Public Service Interns are sponsored by the Maguire Center. The Maguire Center—with financial assistance from the Irby Family Foundation—awards summer internships to SMU students who wish to devote time to public service or research in the field of ethics. SMU Public Service Interns have volunteered in a vast number of diverse internship placements. Through such opportunities, students gain concrete information about others' needs, as well as differing perspectives on how to resolve them. Undergraduates receive a \$2000 grant for their internship. www.smu.edu/Provost/Ethics/StudentEngagement/Fellowship

The Richter International Fellowship Program is funded by the Paul K. and Evelyn E. Cook Richter Memorial Funds and is awarded to members of the University Honors Program to conduct independent research, usually outside the United States. The project can cover any area of study, but should be international or multicultural in nature. SMU is one of only 12 schools offering Richter Fellowships, and only Honors students are eligible for the Fellowships. Richter Fellows receive funding for one to three months of research over winter or summer break, generally abroad.

Upon returning, Fellows write and submit a scholarly article based on their research with intent to seek publication. www.smu.edu/Provost/ProvostOffice/SAES/HonorsCommunity/UHP/Research/Fellowship

The McNair Scholars Program is a federally funded TRIO program that serves a diverse group of undergraduate students at 151 universities across the nation. The program was designed to prepare students typically underrepresented in graduate education for doctoral attainment through involvement in intensive undergraduate research. McNair Scholars complete a funded summer research opportunity, where they work closely alongside a faculty mentor. Additionally, the program provides academic and career advising, faculty mentoring, and assistance with graduate school applications. www.smu.edu/simmons/Community/College-Access-Programs

OFFICE OF ENGAGED LEARNING

The Office of Engaged Learning offers significant co-curricular programs for both undergraduate research and entrepreneurship. In addition to the funding programs below, the office hosts opportunities for students to present research (Fall Research Symposium, Research Days Undergraduate Poster Session, and the Journal of Undergraduate Research). The office also hosts workshops for students to develop skills as researchers and entrepreneurs.

Through the **Big iDeas** Pitch Contest and Business Plan Competition, students can win seed money for starting a business, building a foundation, designing a product, or providing a service. Big iDeas winners receive full access to the **Incubator@SMU** in Expressway Tower. At the Incubator, students benefit from professional development, access to office space, and mentoring from entrepreneurs-in-residence. www.smu.edu/BigiDeas

The **Engaged Learning Fellowship (ELF)** allows undergraduate students to engage in capstone-level scholarly research, creative projects, professional internships, or community service projects. SMU funds ELF's up to \$2000 per project and records their project titles on student transcripts and in commencement booklets. www.smu.edu/Provost/Engaged-Learning/Research/Engaged-Learning-Fellowship

The **Undergraduate Research Assistantship (URA)** program provides research opportunities for students in all disciplines. Students work side by side with faculty mentors, for whom the Office of Engaged Learning provides matching funds to a department, school, or research grant. Our research programs have supported thousands of students across the university, from first year to senior year. Student researchers have achieved numerous milestones such as conference presentations, co-authoring papers, and journal publications. www.smu.edu/Provost/Engaged-Learning/Undergraduate-Research/URA

TABLE OF CONTENTS

Natural Sciences & Engineering

- 1) Rushes of Northcentral New Mexico

*Madeline L.
Payne*

- 2) The Use of Ruthenium Complexes as Molecular Probes for Non-Canonical DNA

Eleni Sullivan