

SAN JOSÉ STATE UNIVERSITY

MCNAIR SCHOLARS
PROGRAM

RESEARCH JOURNAL

* San José State University and McNair

The Ronald E. McNair Post Baccalaureate Achievement Program was established by Congress in 1986 after the tragic explosion of the Space Shuttle Challenger that killed seven crew members, including Dr. McNair. Funded by the U.S. Department of Education, the program provides institutions with grants to develop and implement successful programs that recruit promising and aspiring low-income and first-generation students and those from backgrounds underrepresented at the doctoral level and prepares them for the rigors of graduate level work. Currently, the program operates at 151 institutions across the country serving over 5,000 scholars each year.

Since the McNair Scholars Program's inception at SJSU in 1996, McNair has successfully recruited over 350 low-income and first-generation students and individuals who are underrepresented at the doctoral level. Of those who have completed the program, 100% have earned their bachelor's degree, far exceeding the 16% - 20% for this population nationwide. Eighty eight percent of our SJSU graduates have finished or are pursuing a graduate school degree, and 100% of our students who are in graduate school are continuously enrolled. This year, 4% of our SJSU alumni who went off to graduate school attained their Ph.D.'s. SJSU has McNair alumni teaching or studying at universities across the United States, as well as in Germany, Columbia, Kenya, Australia, Turkey, and Morocco. We are extremely proud of our students and our program's successes.

San José State University does not discriminate on the basis of race, color, creed, national origin, gender, sexual orientation, age, or disability in the administration of its educational policies, admissions policies, fellowship and loan programs, or other programs. San José State University is in compliance with Section 504 of the Rehabilitation Act of 1973 and provides accessible walkways, ramps, and reserved parking spaces for the handicapped.

The information and policies included in this journal were current when printed but are subject to change without notice. Additional and more current information may be found on the World Wide Web at <http://www.sjsu.edu>.

This journal can also be accessed at <http://scholarworks.sjsu.edu/mcnair/>.

MCNAIR PROGRAM STAFF

DR. MARIA ELENA CRUZ

Director

Principal Investigator

TAYLOR-DAWN FRANCIS, M.A.

Program Coordinator

MARTHA TORAL

Administrative Coordinator

Faculty Mentors for the 2021-2022 Research Year

DR. AGUSTINA BERTONE

DR. PATRICK BROWN

DR. JONATHAN GOMEZ

DR. KARIN JEFFERY

DR. PATRICK JURNEY

DR. LINDA MITCHELL

DR. FRANK ORTEGA

DR. ALEXANDER PAYUMO

DR. RUBY RAMIREZ

JASON VENTURA

PAMELA WELLS

DR. MIRANDA WORTHEN

DR. ANNALISE VAN WYNGARDEN

Editors

DR. MARIA ELENA CRUZ

TAYLOR-DAWN FRANCIS, M.A.

Cover

BROOKE FINISTER

ACKNOWLEDGMENTS

**WE ARE DEEPLY GRATEFUL TO THE FOLLOWING PERSONS
FOR THEIR SUPPORT:**

U.S. DEPARTMENT OF EDUCATION
Dr. Miguel Cardona

LINDA BYRD-JOHNSON
Director of the Office of Federal Trio Programs

CARMEN GORDAN
Program Officer

SAN JOSÉ STATE UNIVERSITY ADMINISTRATION

DR. STEPHEN PEREZ
Interim President

PATRICK K. DAY
Vice President of Student Affairs

DR. GREGORY WOLCOTT
*Associate Vice President for Student Transition and Retention Services
Division of Student Affairs*

A MESSAGE FROM THE DIRECTOR

The San José State University McNair Scholars Program is pleased to present the eighteenth SJSU McNair Scholars Research Journal. This journal represents the diverse and practical research experiences of the McNair Scholars during the 2020-2021 academic year.

I would like to congratulate the scholars for their hard work, dedication, and accomplishments, especially during this COVID-19 Fall 2021 and Spring 2022 semesters which was very difficult but we all persevered. I also wish to express my sincere appreciation to the faculty mentors for their guidance, time, and commitment to the scholars, their research, and the program during these trying times. A particular word of thanks goes out to the families and extended support systems that made these outstanding presentations possible.

This year, we are honoring Victoria Garcia, Barbara Sanchez, and Jacquelyn Simmons. Victoria Garcia's work is titled: "The Effect of Cultural and Traditional Customs on Mexican and Mexican-American Women's Development of Identity in the Bay Area." She is attending the Spanish Master's program at San José State University. Barbara Sanchez's work is titled: "Postpartum Depression in Women of Color." She will be applying to graduate school in Fall 2022. Jacquelyn Simmons' work titled: "Visualizing Hormonal Effects on Cardiomyocyte Hypertrophic Growth Dynamics Using Digital Holographic Microscopy: Does Size Matter?" She is now in the Biological Sciences, Concentration in Physiology Master's program at San José State University.

On the cover of this year's journal, we have once again highlighted Brooke Finister's artwork, which reflects Brooke's journey as a black woman, and as a McNair Scholar at San José State University who accomplished so much and is now in her second year as a graduate student at Columbia University in New York.

We are grateful for these virtuoso McNair Scholars for their continued brilliance and resilience, and hope they are striving to continue their dreams as academics and individuals.

We are eternally grateful for Martha Toral, who has been an Administrative Analyst and Assistant Director to our McNair & SSS TRiO Programs for ten years! Martha is an amazing colleague, friend, and unofficial advisor to our students, and we are all going to miss her dearly. We were all blessed to have you in our office; thank you for always encouraging our students to follow their dreams. We are wishing you the very best in following yours! Gracias! Thank you!

We thank you very much for continuing to support our scholars through your readership of our journal.

Please continue to take care during these unprecedented times.

Maria Elena Cruz, PhD.

TABLE OF CONTENTS

McNair Research Papers

1 Ariana Esfahani

“Medical Cannabis Treatments.”

FACULTY MENTOR: Dr. Karin Jeffery, Department of Kinesiology, Psychology, and Sociology,

11 Victoria Garcia

“The Effect of Cultural and Traditional Customs on Mexican and Mexican-American Women’s Development of Identity in the Bay Area.”

FACULTY MENTOR: Dr. Ruby Ramirez, Department of World Languages and Literatures (Spanish)

39 Barbara Sanchez

“Postpartum Depression in Women of Color.”

FACULTY MENTOR: Dr. Agustina Bertone, UCLA Semel Institute for Neuroscience and Human Behavior

51 Jacquelyn Simmons

“Visualizing Hormonal Effects on Cardiomyocyte Hypertrophic Growth Dynamics Using Digital Holographic Microscopy: Does Size Matter?”

FACULTY MENTOR: Dr. Alexander Payumo, Department of Biological Sciences

McNair Research Plans

61 Reem Farhat

“Visualizing Hormonal Effects on Cardiomyocyte Hypertrophic Growth Dynamics Using Digital Holographic Microscopy: Does Size Matter?”

FACULTY MENTOR: Pamela Wells, Department of School Management;
Jason Ventura, Department of Psychology

67 Yeab Kebede

“Beyond My Name: Ethiopians and Ethiopian Americans Confronting
Identity, Language, Culture, and Education.”

FACULTY MENTOR: Dr. Frank Ortega, Department of African American
Studies