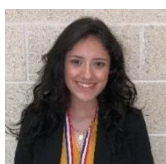


2020-2021 COLLEGE SCHOLARSHIP RECIPIENTS

CIBA SPECIALTY CHEMICALS SCHOLARS

CIBA Specialty Chemicals was a leading global chemical company acquired by BASF in 2008. The Ciba Foundation made a generous legacy gift to the American Chemical Society to establish the Ciba Specialty Chemicals Scholars Endowment, a new component added to the Project SEED college scholarship program. This gift expanded the one-year Project SEED college scholarships to a three-year renewable scholarship. As of today, 13 of the 21 awardees have graduated in the chemical sciences.



Leilani Garcia is a graduate of Union City High School and participated in Project SEED in 2018. Leilani worked on a research project titled "Exploring Alkali Promotion for Carbon Dioxide Activation and Catalyst Coke Suppression" under the guidance of Elaine Gomez at Columbia University. Leilani is majoring in Chemical Engineering at the New Jersey Institute of Technology and is interested in pursuing a Ph.D.



Maelah Robinson-Castillo is a graduate of Centennial High School and participated in Project SEED in 2018. Under the guidance of Sandra Bonetti at Colorado State University-Pueblo, Maelah worked on a research project titled "Effects of Zn and Cu on Fungal Hydrolase Activities," as well as learned 23 new chemistry techniques. Maelah is pursuing a degree in Chemistry and Molecular Biology at the University of Denver.



Oluwapelumi Oguntade is a graduate of Rufus King High School. Under the guidance of Blake Hill at Medical College of Wisconsin, Oluwapelumi worked on a research project titled "Protein Residue Identification and Research." Oluwapelumi is pursuing a degree in Chemistry at Marquette University and hopes to become a translational scientist in the future.

LOCONTI SCHOLAR

The Joseph D. Loconti Endowment is a new edition of the scholarship offerings from Project SEED. Joseph Loconti was a 78-year member of ACS and contributed annually from 2009 to 2013. He was a professor at Cornell University (1946) and founded the Paper Thermometer Company in 1953. Upon his passing in early 2019, he bequeathed \$500,000 towards both Project SEED summer research fellowships and college scholarships. Of the gift, \$450,000 was used to create the Joseph D. Loconti Endowment. Starting in 2020, this renewable scholarship will be issued each year to an incoming freshman and will continue through their senior year.



Gonzalo Alarcon is a graduate of Jose Marti STEM Academy in Union City. Previously, he participated in Project SEED in 2018 at the New Jersey Institute of Technology. In 2019, under the guidance of Dr. Steven Levison at Rutgers New Jersey Medical School. Alarcon worked on a research project titled "Evaluating the Effects of Leukemia Inhibitory Brain Injury." Alarcon will be majoring in Biochemistry at Columbia University.

2020-2021 COLLEGE SCHOLARSHIP RECIPIENTS

ALFRED AND ISABEL BADER SCHOLARS

Alfred Bader is one of the founders of the Sigma-Aldrich Company. Alfred and Isabel Bader have generously contributed to Project SEED over the years. In 1992 their support started the Summer II program, and since 1997, supported the Project SEED college scholarships.



Aboubakar Dabre attended Ellis Preparatory Academy and participated in Project SEED in 2019. Under the

direction of Karen Kasza, Dabre researched at Columbia University. Aboubakar will major in Biochemistry at Clarkson University. After college, Dabre plans to research complex diseases.



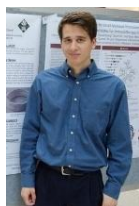
Frank Peprah graduated from Irvington High School and participated in Project SEED in 2018 and 2019. He

worked with Dr. Huixin at Rutgers University. His project titled, "Microwave-Enabled Rapid Fabrication of Enzyme-Inspired SAC using MOFs as Precursor" aimed at producing a cheap and eco-friendly source of electricity to replace fossil fuels. He is majoring in Biochemistry at Amherst College. Frank plans on attending graduate school to become a biomedical scientist.



Maura Dresner Pfau graduated from Timberline high school and participated in Project SEED in 2018 and 2019. Under the

direction of Jeunghoon, Maura worked on the "Optimization of Gold Nanoparticle Release from Magnetic Polymer Microbead Template for Sensitive Colorimetric Detection of DNA." Her research was conducted at Boise State University and presented at the ACS 2019 Fall national meeting in San Diego. She is majoring in Chemical and Biomolecular Engineering at the University of Pennsylvania.



Alexander Gordon attended Shortridge High School. As a Project SEED participant in 2018 and 2019 under the direction of Jing

Zhang at the Purdue School of Engineering and Technology at IUPUI, Alexander researched the optimal method to 3d print a zirconium silicate ceramic slurry with a custom 3d printer. He is majoring in Biochemistry at Purdue University West Lafayette.



Hue Man Dang graduated from Bear Creek high school in Stockton, CA and participated in Project SEED in

2019. She worked on the research of aminoglycosides binding with i-motif DNA under the direction of Dr. Liang Xue at the University of the Pacific. Hue is majoring in Chemistry at the University of the Pacific.



Michael Yang is a graduate of Boardman High School. He participated in Project SEED in

2019 at Youngstown State University. Under the direction of Sherri Lovelace Cameron, Michael helped conduct research on the electrochemical properties of semiconductors. Michael is majoring in Chemistry at Vassar College.



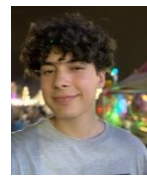
Alexis Grady attended Benjamin Elijah Mays High School and was the Salutatorian of the Class of 2020.

Alexis participated in Project SEED in 2018 at Clark Atlanta University.



Jagger Torres graduated from Highlands High School in San Antonio, TX. She is attending The

University Of Texas at Arlington, where she will pursue a degree in



Nathanel Rodriguez is a graduate of Centro Residencial de Oportunidades Educativas en Ceiba (CROEC) school that

specializes in science and math. He participated in Project SEED in

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Under the direction of Shirnece Brown, she conducted experiments working with polymer Polyethylene oxide and an inorganic compound Molybdenum Disulfide. Alexis is attending North Carolina A&T as a chemical engineering major.



Areesha Majid graduated from Natomas High School and participated in Project SEED in

2019. Under the direction of Jessie Lundervold at the University of California, Areesha researched the effect of PVP (polyvinylpyrrolidone) on the shape of germanium nanoparticles. Areesha is majoring in Biological Science at the University of California, Davis.

Biomedical Engineering. Jagger Participated in Project SEED in 2019 under the direction of Heather Bonduris at Southwest Research Institute. Her research focused on Polymers for Enhanced Oil Recovery.



Jordhan Booth graduated from Laurel High School and participated in Project SEED in 2019. Mr. Booth worked with Dr. Donahue at

the University of Southern Mississippi, investigating various metal triflates as catalysts. He is majoring in Chemistry at Tougaloo College.

2019. Under the guidance of Dr. Arthur Tinoco at the University of Puerto Rico - Río Piedras Campus (UPR-RP), Mr. Rodriguez worked on a research titled "The Study of Titanium (IV) Metal Complexes Containing Iron Chelating Ligands."



Rayal Smith graduated from Triangle High School and participated in Project SEED in 2019. Rayal was

mentored by Dr. Jillian Demsey, at the University of North Carolina Chapel Hill. Her research focused on "Investigating the Performance of an Enzyme Inspired Catalyst." Ms. Smith is majoring in Biochemistry at the University of Maryland-Baltimore County.



Chittra Xiong graduated from Como Park Senior High School and participated in Project SEED in 2018

and 2019. Under the direction of Jay Weber at the University of Minnesota Twin Cities, their research focused on making an ion-selective electrode (ISE), a water filter (2018). Chittra's second research project used heat to form a porous polymer that was applied to a water selective membrane (2019). Chittra is a Chemistry major at the University of Minnesota Twin Cities.



Julian Morales graduated from Colegio Nuestra Señora del Pilar in Puerto Rico. He participated

in Project SEED in 2019 under the direction of Dr. Jorge L. Colon and Dr. Mario Ramos at the University of Puerto Rico, Rio Piedras. Their research focused on the development of a drug for blood infections. Julian is majoring in Chemical Engineering at the University of Puerto Rico at Mayaguez.



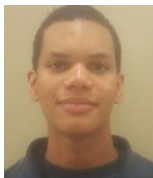
Shanel Calle Urgiles graduated from Union High School. She participated in Project SEED for the summer of 2018 and 2019. She

researched the effect of CSF1 growth factor and U87 conditioned media on the behavior of macrophages. She also synthesized novel CCR1 receptor antagonists that could serve as a potential treatment for brain cancer known as Glioblastoma Multiforme. Shanel is a Chemical Biology major at Stevens Institute of Technology.



Emily Delgado graduated from Union City High School and participated in Project SEED in

2019. Under the direction of Mina Armani, she participated in research focused on converting non-edible plant leaves to a source



Kennedy Rodriguez graduated from Eastside High School and participated in Project SEED in

2019. Under the direction of Catalin Martin, he performed research on the deposition of monolayers of metallic

Yazmin Villanueva graduated from Galt High School. She participated in the UC Davis SEED Summer Program in 2019, under the direction of Dr. Shota Atsumi. The Atsumi Lab focused on metabolic engineering. The lab's main goal was to find an alternative production system that does not produce but instead consumes

2020-2021 COLLEGE SCHOLARSHIP RECIPIENTS

of food and fuel. Emily is attending St. Peters University as a biochemistry major.



Emily Morrison graduated from Bridgewater Raynham Regional High School. Emily participated in

Project SEED in 2019 under the direction of Louis Liotta at Stonehill College. She is majoring in biomedical engineering at Boston University.

nanoparticles using the Langmuir-Blodgett technique, which involved the use of infrared spectroscopy and atomic force microscopy. He is attending American University as a biochemistry major.



Kimberlynn Mai graduated Valedictorian from Laurel High School in Laurel, MS. She participated in Project

SEED in 2018 under the direction of Douglas Masterson at the University of Southern Mississippi. Kimberlynn's research focused on Integrase inhibitors in HIV. She is majoring in Chemistry at the University of Houston.

atmospheric carbon dioxide all in hopes to undo industrial pollution. She is attending UC Davis and majoring in biochemistry.



Ying yin Zhu graduated from Caldwell High School and participated in Project SEED in

2019. Under the direction of Dr. Mike Hurley at Boise State University study, she focused on the corrosion properties of additively manufactured stainless steel and wrought stainless steel. "Using electrochemical cyclic polarization and electron microscopy tests, I concluded that additively manufactured stainless steels are more corrosion resistant than conventional stainless steels." Ying yin is attending UCLA and majoring in biochemistry.



Emily Duclos Polanco graduated from the Dr. Gilberto Concepción de Gracia school and

participated in Project SEED summer 2019. Under the guidance of mentors Dr. José A. Rodríguez-Martínez and Jessica M. Rodríguez, Emily had the opportunity to investigate the effect of disease-associated mutations on CREB1 binding to DNA. Her goal is to complete her bachelor's degree in Chemistry at the University of Puerto Rico - Río Piedras.



Mason Lampron attend Gloversville high school. He participated in Project SEED in 2018, under the

direction of K V Laskshmi. "I worked with organometallic compounds at Rensselaer Polytechnic Institute in Troy, New York. My future goal is to earn my bachelor's degree in biochemistry from SUNY Oneonta, and then earn a master's degree in epidemiology from SUNY Albany." Mason's goal is to become an infectious disease epidemiologist. Mason is majoring in biochemistry at SUNY Oneonta.



Zaid Cervantes is a graduate of Clovis North high school. Zaid participated in Project SEED in

2019 under the direction of Joy Goto at Fresno State University. "Project SEED allowed me to take chemistry, and adapt it into practical applications outside of the domain of chemical science, something that I'm looking forward to doing in years to come as I explore career paths within chemistry, and find alternative applications for the word: chemist." Zaid is currently attending the University of California Santa Cruz as a Biochemistry major.

2020-2021 COLLEGE SCHOLARSHIP RECIPIENTS

BAYER SCHOLARS

The Bayer Foundation contributed to the Project SEED Endowment. Bayer is a research-based company with major businesses in health care and life sciences as well as chemicals and imaging technologies.

Since 1993, Bayer has supported Project SEED alumni.



Andrea Mancia graduated from Northgate High School in Newnan, Georgia. Andrea participated in Project SEED in 2019 at Spelman College under the direction of Dr. Gaines. The research focused on cell

growth and migration using synthetic biomaterial systems that mimic the extracellular matrix (ECM). Their research was presented at the ACS Fall National Meeting in San Diego among other Project SEED students. Andrea was also selected to speak at the ACS meeting at the Donors Reception. She is attending Emory University as a Chemistry major. Upon completion of her undergraduate degree, Andrea would like to pursue an M.D./Ph.D.



Soufiane Badri graduated from Washington-Liberty high school and participated in Project SEED in 2019. Under the direction of Dr. Timothy Warren at Georgetown University, their research focused on C-H

Methylation through a Cu II -Methyl Intermediate. Soufiane is a freshman at Virginia Tech pursuing Chemistry. His future career goal is to earn a Ph.D. in Chemistry and become a research professor.



Joshua Trombley attended Capital High School, where he participated in Project SEED, from 2017 to 2020. Under the direction of Dr. Don Warner, he presented his research at the Idaho Conference on

Undergraduate Research (ICUR). His research was titled "Rational Design of Small Molecule Inhibitors to Prevent Metastatic Breast Cancer." Joshua is majoring in chemistry at Boise State University.



Megan Spelock- Chemistry, Fairmont State University attended Riverside High School and participated in Project SEED in 2019. Under the direction of Michael Fultz at West Virginia State University, Megan worked to

synthesize a new acyl sugar pesticide to use on crop tomatoes. Megan is majoring in Chemistry at Fairmont State University.

Natalie Nixon is a graduate of Northampton high school and participated in Project SEED in 2019. She researched under the direction of Kevin Kittilstved at the University of Massachusetts Amherst. Natalie is majoring in Chemistry at Brown University.

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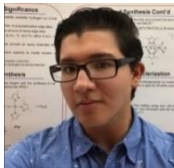
FOSBINDER SCHOLARS

The Estate of Elizabeth Ernest Fosbinder, wife of late ACS member, Dr. Russel J. Fosbinder stipulated the establishment of an endowment in honor of Dr. Fosbinder to fund college scholarships for graduates of Project SEED. Since 2004, the endowment has supported Project SEED alumni.



Esthela Barriga graduated from Del Lago Academy in Escondido, California. Esthela participated in Project SEED in 2019, under the guidance of Jacqueline Trischman, at Cal State University-San Marcos.

Esthela is majoring in Chemistry at the University of California, Riverside.



Zek Kelly graduated from East High School and participated in Project SEED in 2018. Under the guidance of Matthew Cranswick at Colorado State University-Pueblo, Zek worked on a research project titled "Modeling the Activity of Mo/W-Containing Nitrate Reductase of *Pyrobaculum Aerophilium*." Zek is majoring in Chemistry at Colorado School of Mines.

GILEAD SCHOLARS

Gilead Sciences has contributed annually to Project SEED by providing stipends to students nationwide. Gilead is a research-based biopharmaceutical company that discovers, develops, and commercializes innovative medicines in areas of unmet medical need.



Catherine Pangemanan graduated from Highland Park High School. She participated in Project SEED in 2018, under the direction of Dr. Robert

Hayes at Rutgers University. Her research project featured atomic force microscopy and the study of ionic liquids to determine how it can revolutionize and make the mechanical industry more efficient through gradually replacing the standard coolants we see in vehicles such as cars. She presented her findings at the Project SEED conference in Seton Hall University and received one of the highest scores. Catherine is attending the New Jersey Institute of Technology.



Karett Cooper graduated from Joseph C. Wilson Magnet High School and participated in

Project SEED in 2019. She researched at the Rochester Institute of Technology, under the direction of Dr. Lea Michel. The goal of this project was to find the amino acids in Pal where it binds to peptidoglycan. We hypothesized that if we change those amino acids, then Pal would stop binding peptidoglycan and be more easily released from *E. coli*. Karett is a Chemistry major at St. John Fisher College.



Tyler Johnson participated in Project Seed in 2019. Under the guidance of Dr. Aaron Rury at

Wayne State University, Tyler worked on a research project titled "An Investigation of Purification and Vibrations of 2 - Methylbenzimidazole (MBI) using a Raman Microscope. Tyler will be majoring in Chemistry at Wayne State University.

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Huixin Ma graduated from Galileo Academy in San Francisco. Huixin participated in

Project SEED in 2018 and 2019 under the direction of Dr. Misty Kuhn at San Francisco State University. Her 2018 research investigated the chimeric SPEGs from *Escherichia coli* and *Vibrio cholera*. In 2019, their research focused on the *P. Aeruginosa* enzyme acceptor sites. Huixin is attending the University of California, Berkeley.

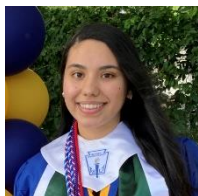


Michael Trimble graduated from Everest Academy and participated in Project SEED in 2018 and 2019.

Under the direction of Zachary Tonzetich at The University of Texas-San Antonio, Michael participated in two research opportunities. Summer I (2018), his research involved Suzuki-Miyaura coupling catalyzed by a Ni(II) PNP pincer complex. In Summer II (2019), his research entailed a goal to understand corroles, synthesize 5,10,15 triphenylcorrole (TPC), synthesize 5,10,15 trimesitylcorrole (TMC), and metalate TMC and TPC. Michael is majoring in Chemistry at St. Mary's University.

ULLYOT SCHOLAR

Glenn and Barbara Ulliot. Glenn Ulliot worked for Smith, Kline & French Laboratories. He was a major contributor to the discovery and manufacture of new drugs in the medical world. Barbara Ulliot had a management career at ACS and was a valuable member. Glenn and Barbara provided college scholarships to Project SEED students over their lifetime.



Afrah Faraz attended East Mecklenburg High School in Charlotte, NC. At the University of North Carolina Charlotte, she participated in Project SEED in 2018 and 2019. Under the direction of Christopher Bejger, they researched the synthesis and characterization of iron-sulfide covalent organic frameworks. Afrah is majoring in Chemistry at the University of North Carolina at Chapel Hill. Afrah would like to earn a Ph.D. in Chemistry and conduct research as a college professor.