

PROJECT PATHWAYS



**DIVERSITY
PROGRAM
CONSORTIUM**

Supported by the National Institutes of Health

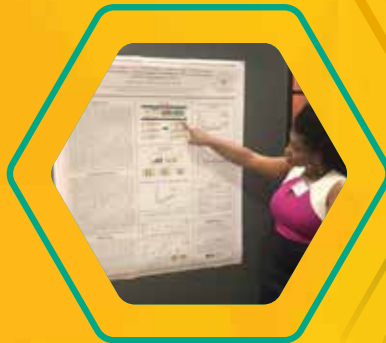




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Core Infrastructure



Student Training Core

The Student Training Core (STC) expands the number of hands-on mentored biomedical research opportunities offered to Xavier students. This core also coordinates several activities designed to educate freshman and sophomore students about the variety of possible biomedical research careers they can pursue.



Research Enrichment Core

The Research Enrichment Core (REC) strengthens Xavier's supportive environment for students to overcome barriers to success through curriculum enhancement, mentor training, and post-baccalaureate research training. The Core also supports faculty research competitiveness.



Institutional Development Core

The Institutional Development Core (IDC) provides resources for key offices and centers across the campus that assist with students' academic support, professional development and undergraduate research activities.



Administrative Core

The Administrative Core provides administrative oversight of the other three cores, oversees program evaluation, and ensures that there is on-going communication with the NIH, the Center for Evaluation and Coordination (CEC), and the other members of the Diversity Program Consortium (DPC).

Introduction to **BUILD at Xavier**

The BUILD (Building Infrastructure Leading to Diversity) Program is funded by the National Institute of General Medical Sciences (NIGMS) at the National Institutes of Health (NIH). This highly-innovative initiative was designed as a set of experimental training awards made to higher education institutions to study and implement practical approaches to engaging and retaining students from diverse backgrounds in biomedical research careers. These awards are part of a larger initiative by the NIH to enhance the diversity of the NIH-funded workforce. The ultimate goal of this NIGMS Training, Workforce Development, and Diversity (TWD) Program is to address the lack of diversity in the biomedical research workforce and prepare a diverse group of future contributors.

Xavier University of Louisiana (XULA) was chosen as one of ten recipients of a BUILD award. Xavier developed *Project Pathways*, which includes several components targeting students, faculty, and several academic and non-academic offices and centers on campus. *Project Pathways*, now in its seventh year, focuses on the various pathways to success for students in the biomedical sciences, bringing together academic and scholastic support areas to provide students with a holistic program that better prepares them for graduate studies and biomedical research careers.

In 2014, the ten 5-year Phase I BUILD awards were issued. Alongside other requirements, eligible institutions needed a student population with at least 25% Pell Grant recipients. More than 50% of Xavier's students receive Pell Grants, while nearly 94% receive some form of financial aid. BUILD institutions serve a topographically and racially diverse population and include minority-serving institutions, institutions with targeted outreach projects to special populations, and institutions with a significant minority enrollment. In 2019, the BUILD sites were renewed for the second and final 5-year phase of the grant. The participating institutions continue to utilize and improve the experimental and effective programs developed during Phase I and widely disseminate their findings.

The COVID-19 pandemic has highlighted the inequities facing people of color. A diverse biomedical workforce provides several key benefits for both biomedical sciences and society as a whole. These include narrowing the health gap focusing on health inequities; improving relations between underrepresented groups and biomedical professionals; increasing creativity by tapping into diverse perspectives; broadening the scope of inquiry into often neglected areas; and promoting and ensuring fairness and understanding.

Black and African American individuals obtain a disproportionately low number of science degrees. In Mathematics, Engineering, and the Life and Physical Sciences, less than 10% of bachelor's degrees, less than 12% of master's degrees, and less than 7% of doctoral

degrees are conferred to individuals who identify as Black or African American (latest available data, 2018¹), even though they constitute 13.4% of the U.S. population. In recent years, there has been a slow improvement through nationwide efforts, but there is still much work to be done.

Xavier University of Louisiana is the only historically Black and Catholic institution of higher education in the United States. U.S. News Media Group has consistently ranked Xavier as one of the top historically Black Colleges and Universities (HBCUs) in the nation². The University is nationally recognized for its excellence in the Science, Technology, Engineering, and Mathematics (STEM) curricula, while also hosting strong academics in the Liberal Arts. More than 78% of Xavier undergraduates in the 2019-2020 academic year majored in biomedical (Biology, Biochemistry, Chemistry, Physics and Computer Science, Mathematics, Neuroscience, Public Health Sciences, Psychology, and Sociology) disciplines³. Xavier has consistently ranked in the top national producers of Black and African American students graduating with undergraduate degrees in Biology, Chemistry, Physics, and the Physical Sciences overall⁴. The University is also fifth in producing African American students who earn their doctoral degrees in Science and Engineering⁵. Xavier is nationally recognized for producing health professionals, and a recent American Association of Medical Colleges (AAMC) report recognized Xavier as the top producer of Black and African American graduates who complete medical degrees. In September 2015, the New York Times Magazine chronicled the unmatched success of Xavier's Premedical Program⁶. Xavier's academic excellence in premedical education was even featured in a Public Broadcasting Service (PBS) News Hour segment on Tuesday, May 8th, 2018⁷. Xavier's College of Pharmacy has also been among the nation's leaders (top four) in awarding Doctor of Pharmacy degrees to African Americans⁸.

1. National Science Foundation, Division of Science Resources Statistics. (2018) Science and Engineering Degrees, by Race/Ethnicity of Recipients: 2008-2018. Detailed Statistical Tables NSF 10-300. Arlington, VA. Available at <https://ncesdata.nsf.gov/sere/2018/>

2. U.S. Media Group. Best Colleges Rankings: Xavier University of Louisiana. Available at <https://www.usnews.com/best-colleges/xavier-university-of-louisiana-2032/overall-rankings>

3. Institutional Research, Institutional Research & Decision Support: Xavier University of Louisiana Profile 2020-2021. Available at https://preview-assets-us-01.kc-usercontent.com/fe4...00/External%20All_2020-2021%2010-25-2020.pdf

4. Diverse Issues in Higher Education, Top 100 Degree Producers: Baccalaureate, 2020. Available at <https://diverseeducation.com/top100/pages/BachelorsDegreeProducers2020.php>

5. Fiegner, M.K. & Proudfoot, S.L. Baccalaureate Origins of U.S.- Trained S&E Doctorate Recipients. National Science Foundation, National Center for Science and Engineering Statistics, 2013 (NSF 13- 323). Available at <https://www.nsf.gov/statistics/infbrief/nsf13323/>

6. Student Data, Applicant and Matriculation File, 2015-2016. In: AAMC Data Warehouse. Available at <https://www.aamc.org/download/321446/data/factstablea2-1.pdf>

7. Hannah-Jones, N. A Prescription for More Black Doctors: How Does Tiny Xavier University in New Orleans Manage to Send More African-American Students to Medical School than Any Other College in the Country? The New York Times Magazine. New York; September 9, 2015.

8. Best Pharmacy Programs. Available at <https://www.usnews.com/best-graduate-schools/top-health-schools/pharmacy-rankings/>



Basic Overview of **Project Pathways**

Project Pathways at Xavier is a program funded by the NIH that seeks to increase diversity in the biomedical research workforce through providing research experience, enrichment activities, and academic support for Xavier undergraduates. *Project Pathways* is one of ten grants funded through the NIH-BUILD mechanism. These ten BUILD sites, together with the National Research Mentoring Network (NRNM) and the Coordination and Evaluation Center (CEC), encompass the Diversity Program Consortium (DPC). The Consortium provides rich data from the implementation of BUILD-focused experiments and programming to identify and address significant barriers to success for students from underrepresented populations in the biomedical research workforce.

At Xavier, the *Project Pathways* activities are carried out through the combined and collaborative efforts of four cores: the Student Training Core (STC), the Research Enrichment Core (REC), the Institutional Development Core (IDC), and the Administrative Core. The STC, REC, and IDC have worked together to develop a series of activities designed for Xavier students from their first to

senior year, in addition to select recent Xavier graduates. These activities were developed to address the challenges and barriers Xavier students often encounter as they move towards terminal degrees and careers in the biomedical workforce.





A Note from the **President**

Now more than ever, we must examine the need for diversity and representation in all areas. The BUILD Program at Xavier University of Louisiana, *Project Pathways*, continues to be a pipeline for our students to advanced levels of the biomedical research workforce. *Project Pathways* offers our students hands-on research and rich opportunities to explore new areas of interest, which are vital elements in the preparation and education of talented scientists. The program prepares the next generation of researchers and scientists and is an excellent opportunity for students to immerse themselves in their chosen fields of study.

Our faculty and administrators recognize that students with talent and ability may not have been afforded the pre-collegiate education they deserve. Therefore, Xavier is committed to finding and resolving any deficiencies that impede these students on their path to success.

Especially during the challenges faced in 2020, our faculty have worked tirelessly to enhance the curriculum available to our students, to broaden the experiences we offer, and to improve the prospects of all who engage in learning in our halls. We are educating the leaders of tomorrow.

Xavier has a history of performing a cut above the rest when it comes to graduating African American students in STEM disciplines. BUILD allows us to connect with other institutions committed to realizing equity for students from underrepresented groups. History has not often been kind to people of color, and we exist to right these wrongs by elevating our students to the greatest degree possible across diverse fields of study.

By sharing our knowledge and experiences with BUILD and non-BUILD institutions, including our BUILD research-intensive partners, we make significant contributions to expanding the education and career opportunities for members of underrepresented groups in the sciences. As our students continue to succeed, we fulfill the critical need for representation and equity.

C. Reynold Verret
President

Xavier University of Louisiana

Project Pathways at Xavier, as a part of the NIH's National Institute of General Medical Sciences-funded Diversity Program Consortium, aims to increase the diversity in the national biomedical research workforce. The financial support offered by the BUILD Program has led to the enhancement of the undergraduate experience of our students who seek careers in the biomedical sciences. The program has helped our students develop as leaders, as is aligned with our mission at Xavier.

Our students are provided with improved biomedical curricula, enhanced instructional and research infrastructure, academic and career support, hands-on research skills development, opportunities to attend and present at local and national meetings, and much more. The faculty have also benefited in many ways, including pedagogical and research seminars and workshops, and funding for curriculum development and research. Finally, the national network of BUILD Program Partner Institutions provides our students with opportunities for summer research programs and graduate studies. Xavier's history as an HBCU deeply ingrains it with a prodigious desire to prepare students from underrepresented backgrounds and groups for success. Our values and Catholic spirit also gives us the privilege of embedding ethical leadership training and human rights awareness among all who choose to study among us.

A Few Words from the **Provost**



Especially during the challenges that our community is currently facing, Xavierites are going on to help heal the world. The BUILD Program allows us to expand our legacy and build upon our already solid foundation in the biomedical fields. We are grateful for the opportunity to give our students such wonderful avenues to excellence.

Anne McCall

Provost

Xavier University of Louisiana

Student Training Core







Student Training Core

The Student Training Core (STC) expands the number of hands-on mentored biomedical research opportunities offered to Xavier students. This core also coordinates several activities designed to educate freshman and sophomore students about the variety of biomedical research careers they can potentially pursue.

NIH DPC Virtual Research Symposium

In light of the COVID-19 pandemic, the NIH Diversity Program Consortium (DPC) held a Virtual Research Symposium for BUILD students to showcase their research to their peers. Eleven *Project Pathways* Trainees participated in the 2020 event.

The Trainees submitted formatted presentations on the research projects they have been conducting alongside their faculty mentors. The event was put together quickly, and participating Xavier students were glad to share their research with fellow students across the nation.

One BUILD Post-baccalaureate Technician, Edelmy Marin ('19), was one of 16 presenters from the ten BUILD programs to present her research orally through zoom. Edelmy worked alongside Dr. Lamartine Meda, researching "High Voltage Manganese Oxyfluoride Electrode for Application in Lithium-ion Batteries."



Trainee participants in the NIH DPC Virtual Research Symposium
 From left to right, top to bottom: Edelmy Marin, '19; Zoela, '19; Jessica Griffin, '19; Camilla Do, '19; Breyanah Graham, '21; Karyn Wilson '21; Sequoyah Bell, '21; Rahib Islam, '21; Mi Anjel Jack, '21; Gregory Hodge, '19; Jessica Anderson, '20;



Edelmy Marin ('19) and Dr. Lamartine Meda

Edelmy is currently pursuing her Ph.D. in chemistry at Stony Brook University in New York.

The other ten participating Trainees from *Project Pathways* had their research available to view in a gallery on the DPC website. Symposium participants could pose questions to each other and use the event for networking.

Celebrating the Class of 2020

The BUILD Program at Xavier, *Project Pathways*, celebrated the graduation of the class of 2020 with a video featuring clips of staff and faculty wishing them well on their journey forward. As they settle into their graduate programs during the COVID-19 pandemic, these recent graduates are excited about what the future holds.





Class of 2020



Alexavier Reeves
May 2020
Major: Psychology
Research Project: "Mechanisms that lead to the transformation of early stage breast cancer cells to an aggressive, metastatic phenotype"
Mentor: KiTani Lemieux, Ph.D. (biology)

Alexavier is pursuing his Ph.D. in Clinical Psychology from the University of Detroit Mercy.



Angel'Niqua Dixon
May 2020
Monroe, Louisiana
Major: Biology
Research Project: "Molecular basis for human hereditary Spastic Paraplegia (HSP)"
Mentor: Thomas M. Huckaba, Ph.D. (biology)

Angel'Niqua is currently enrolled in medical school at the University of Rochester School of Medicine and Dentistry.



Ashley Mello
May 2020
Baltimore, Maryland
Major: Biochemistry
Research Project: "Molecular basis for human hereditary Spastic Paraplegia (HSP)"
Mentor: Thomas M. Huckaba, Ph.D. (biology)

Ashley is currently pursuing her doctorate at the Biomedical Sciences Program at the University of Michigan.



Ayinde Abanu
May 2020
Minneapolis, Minnesota
Major: Biochemistry
Research Project: "Synthesis of variable length nucleobase-containing monomers and polymers"
Mentor: Asem Abdulahad, Ph.D. (chemistry)

Ayinde is applying to post-baccalaureate and graduate programs.



Blaine Derbigny
May 2020
New Orleans, Louisiana
Major: Chemistry
Research Project: "Stimuli response polymers"
Mentor: Stassi DiMaggio, Ph.D. (biology)

Blaine is working towards earning his doctorate in organic chemistry from the University of Mississippi.



Cemilla Shaw
June 2020
Major: Neuroscience
Research Project: "Impact of patterned feeding on alcohol consumption"
Mentor: Sunil Sirohi, Ph.D. (pharmacology)

Cemilla is employed a small biotech company. She is planning on applying to graduate programs in Fall 2021.



Daniel Eyassu
May 2020
Denver, Colorado
Major: Biochemistry
Research Project:
“Characterization of activity of lysine deacetylases (KDACs) as influenced by substrate”
Mentor: Terry Watt, Ph.D. (chemistry)

Daniel is attending the Tulane School of Medicine.



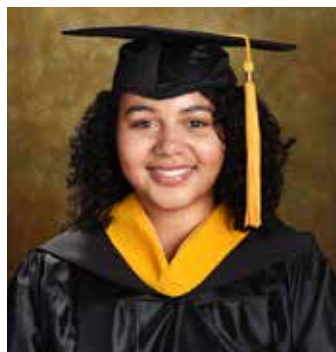
Denise Cayton
June 2020
Corona, California
Major: Biology
Research Project: “Drug discovery using organic synthesis based on molecular modeling”
Mentor: Jayalakshmi Sridhar, Ph.D. (chemistry)

Denise is a 2020-2021 *Project Pathways* Technician.



George Olverson IV
May 2020
Major: Biology
Research Project:
“Nanoparticle formulation, characterization, and targeted delivery into breast cancer cells”
Mentor: Anup Kundu, Ph.D. (biology)

George is currently enrolled in medical school at the University of Rochester School of Medicine and Dentistry.



Jessica Anderson
May 2020
New Orleans, Louisiana
Major: Chemistry
Research Project:
“Development of novel electrochemical biosensors based on an aptamer-based target”
Mentor: Mehnaaz Ali, Ph.D. (chemistry)

Jessica is attending medical school at Louisiana State University.



Jonah Brown
June 2020
Rocky Hill, Connecticut
Major: Chemistry
Research Project:
“Design and synthesis of anticancer agents for triple negative breast and/or prostate cancer”
Mentor: Florastina Payton-Stewart, Ph.D. (chemistry)

Jonah is pursuing his master’s degree through the Norman C. Francis Teacher Residency program at Xavier University of Louisiana.



Mack Williams
May 2020
West Helena, Arkansas
Major: Biology
Research Project:
“Multivariate data analysis techniques in the biobehavioral and social sciences”
Mentor: Carroll Diaz, Jr., Ph.D. (mathematics)

Mack is attending the University of Miami Miller School of Medicine’s Graduate Program in Public Health Sciences.



Myles Bartholomew
May 2020
Houston, TX
Major: Biology
Research Project: "Human immunodeficiency virus (HIV), human herpes virus-8 (HHV8), herpes simplex virus (HSV-1), tumor angiogenesis, diabetes and adult human

mesenchymal stem cells (hMSC)"

Mentor: Anup Kundu, Ph.D. (biology)

Myles is pursuing his doctorate in Molecular Biology, Cellular Biology and Biochemistry at Brown University.



Rhea Harrison
June 2020
Major: Psychology
Research Project: "Exploration into the underlying cultural and social concerns that impact the health of persons and communities"
Mentor: Shantoyia Jones, Ph.D. (psychology)

Rhea is attending Fiske University to earn her master's in Clinical Psychology after graduating a year early from Xavier. She plans on later pursuing her Ph.D.



Taylor Perry-Crawford
May 2020
Major: Psychology
Research Project: "Exploration into the underlying cultural and social concerns that impact the health of persons and communities"
Mentor: Shantoyia Jones, Ph.D. (psychology)

Taylor is a 2020-2021 *Project Pathways* Technician.



Timothy Perry
May 2020
Major: Chemistry
Research Project: "Synthesis of novel cytochrome P450 inhibitors and development of ceramide analogs as anticancer agents"
Mentor: Anup Kundu, Ph.D. (biology)

Timothy is taking a gap year.



William Winchester
December 2020
Major: Biology
Research Project: "Nanoparticle formulation, characterization, and targeted delivery into breast cancer cells"
Mentor: Anup Kundu, Ph.D. (biology)

William is currently enrolled in the Ph.D. program in Chemistry, Health and Environmental Sciences at Oakland University in Rochester, Michigan.

BUILD *Trainees:*

Class of 2021



Arielle Jones
St. Martinville, Louisiana
Major: Psychology
Research Project:
“Stereotypes and prejudice as a result of societal phenomena”
Mentor: Elliot Hammer, Ph.D. (psychology)



Breyanah Graham
Memphis, Tennessee
Major: Biochemistry
Research Project: “Drug discovery using organic synthesis based on molecular modeling for cancer”
Mentor: Jayalakshmi Sridhar, Ph.D. (chemistry)



Cailyn Robertson
Major: Neuroscience
Research Project: “Brain structural and/or functional correlations with human behavior”
Mentor: Jeremy Cohen, Ph.D. (neuroscience)



Chynna Mills
Philadelphia, Pennsylvania
Major: Psychology
Research Project:
“Stereotypes and prejudices as a result of societal phenomena”
Mentor: Shantoyia Jones, Ph.D. (psychology)



Greg McCann-Smith
Lexington, Kentucky
Major: Psychology
Research Project:
“Exploration into the underlying cultural and social concerns that impact the health of persons and communities”
Mentor: Shantoyia Jones, Ph.D. (psychology)



Hannah Williams
Baton Rouge, Louisiana
Major: Biology
Research Project: “DNA Mismatch Repair”
Mentor: Joanna Haye, Ph.D. (biology)



Jenelle DeVry
Aurora, Illinois
Major: Chemical Engineering
Research Project: “Applying the Brakes: Understanding the Role of Conformational Changes in Kinesin-5 Inhibition”
Mentor: Joseph Chaney, Ph.D. (chemistry)



Jennifer Tran
New Orleans, Louisiana
Major: Neuroscience
Research Project: “Detection of Chemical Pollutants by Use of Aptamers”
Mentor: Mehnaaz Ali, Ph.D. (chemistry)



Jordon Wise
Rialto, California
Major: Biology
Research Project: “LRP-1 targeted neuroprotection in the retina of diabetic mice”
Mentor: Partha Bhattacharjee, Ph.D. (biology)



Jumia Callaway
Memphis, Tennessee
Major: Chemistry ACS
Research Project: “Development of derivatives for S6K1 inhibitors as Breast Cancer Therapeutics”
Mentor: Jayalakshmi Sridhar, Ph.D. (chemistry)



Karen Osei-Boamah
Ellicott City, Maryland
Major: Biology
Research Project: “Effects of inherited mutations on DNA mismatch repair protein function”
Mentor: Joanna Haye (biology)



Karyn Wilson
Thibodaux, Louisiana
Major: Chemistry
Research Project: “Mechanism-based irreversible inactivators selective for human cytochrome P450s”
Mentors: Maryam Foroozesh, Ph.D., & Navneet Goyal, Ph.D. (chemistry)



Kingston Robinson
Tempe, Arizona
Major: Biochemistry
Research Project:
“Mechanistic studies of Kinesin-5 to develop a mitosis inhibitor”
Mentor: Joseph Chaney, Ph.D. (chemistry)



Kyla Bongay-Williams
Major: Neuroscience
Research Project:
“Blockade of Neurokinin 1 receptors to reduce nicotine consumption and preference”
Mentor: Erika Perez, Ph.D. (psychology)



Mi Anjel Jack
Major: Neuroscience
Baton Rouge, Louisiana
Research Project: “Brain structural and/or functional correlations with human behavior”
Mentor: Jeremy Cohen, Ph.D. (neuroscience)



Rahib Islam
New Orleans, Louisiana
Major: Biology
Research Project: “Effect of induction of senescent-cell apoptosis by senolytic pharmaceuticals on attenuation of alcohol-induced tissue dysfunction”
Mentor: David Welsh, MD. (LSUHSC)



Samira Mohammed
Chicago, Illinois
Major: Psychology
Research Project: “How Mental Health Affects the African American Community”
Mentor: Brian Turner, Ph.D. (psychology)



Sequoyah Bell
Major: Psychology
Research Project: “Selective neurokinin receptor 1 (NKR) antagonists as nicotine cessation aids”
Mentor: Erika Perez, Ph.D. (psychology)



Tiffany Phillips
Rialto, California
Majors: Chemistry & Psychology
Research Project: “Physical interactions between lysine deacetylases (KDACs) and other proteins”
Mentor: Terry Watt, Ph.D. (chemistry)



Tresaundra Roberson
New Orleans, Louisiana
Major: Psychology
Research Project: “Mechanisms that lead to the transformation of early stage breast cancer cells to an aggressive, metastatic phenotype”
Mentor: KiTani Lemieux, Ph.D. (biology)



Zachary Holly
Chicago, Illinois
Major: Psychology
Research Project: “Selective neurokinin receptor 1 (NKR) antagonists as nicotine cessation aids”
Mentor: Erika Perez, Ph.D. (psychology)



BUILD *Trainees:*

Class of 2022



Aalliyah Celestine
Baton Rouge, Louisiana
Major: Mathematics
Research Project: "Tracking Functional Connectivity using Dynamic Independent Component Analysis During the Meditative State"
Mentor: Jeremy Cohen, Ph.D. (neuroscience)



Alina Baltimore
St. Croix, Virgin Islands
Major: Biomedical Engineering
Research Project: "Drug delivery hydrogels that combine natural, biocompatible polymer with synthetic material"
Mentor: Asem Abdulahad, Ph.D. (chemistry)



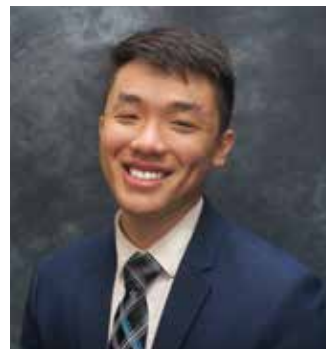
Chinyere Obioha
Baton Rouge, Louisiana
Major: Biology
Research Project: "Design & Synthesis of Small Molecules as Inhibitors of Cytochrome P450 2A6 for Tobacco Use Cessation"
Mentors: Maryam Foroozesh, Ph.D., & Navneet Goyal, Ph.D. (chemistry)



Deeuatrail Nichols
St. Louis, Missouri
Major: Chemistry
Research Project: "Design and Synthesis of Novel Therapeutic Agents for Triple Negative Breast Cancer"
Mentor: Florastina Payton-Stewart, Ph.D. (chemistry)



Degrick Cheatham
New Orleans, Louisiana
Major: Biology
Research Project: "Ceramide Analog 315 and its Inhibitory Effects on Breast Cancer Tumor Growth"
Mentors: Maryam Foroozesh, Ph.D., & Navneet Goyal, Ph.D. (chemistry)



Henry Nguyen
Abbeville, Louisiana
Major: Neuroscience
Research Project: "CT Perfusion Imaging of the Brain. What do Radiologists Need to Know?"
Mentor: Markus Lammler, M.D. (Tulane)



Holly Honore
Baton Rouge, Louisiana
Major: Chemistry
Research Project: "Design and Synthesis of Novel Therapeutic Agents for Various Forms of Breast Cancer"
Mentor: Florastina Payton-Stewart, Ph.D. (chemistry)



Joi Coleman
Major: Pharmacy
Gonzales, Louisiana
Research Project: "Assessing the Impact of a Nutritionally Complete Palatable Diet on Alcohol Dependence-induced Escalated Alcohol Drinking and Negative Emotional States in Female P-Rat"
Mentor: Sirohi Sunil, Ph.D. (pharmacology)



Kirsten McGowan
Major: Biology
Research Project: "Targeted Delivery of Doxorubicin Liposomes for Her-2 Positive Breast Cancer Treatment"
Mentor: Anup Kundu, Ph.D. (biology)



Larry Mason
New Orleans, Louisiana
Major: Chemistry
Research Project: "Assessing the Impact of a Nutritionally Complete Palatable Diet on Alcohol Dependence-induced Escalated Alcohol Drinking and Negative Emotional States in Male P-Rats"
Mentor: Sirohi Sunil, Ph.D. (pharmacology)



Micah Starghill
Detroit, Michigan
Major: Biology
Research Project: "Retinal Pigment Epithelial Cells and LRP-1 Signaling"
Mentor: Partha Bhattacharjee, Ph.D. (biology)



Phong Huynh
New Orleans Louisiana
Major: Neuroscience
Research Project: "Design and Synthesis of CK1 δ and CK1 ϵ Inhibitors as Therapeutics for Alzheimer's Disease"
Mentor: Jayalakshmi Sridhar, Ph.D. (chemistry)



Royce Hooks
Houston, Texas
Major: Biology
Baton Rouge, Louisiana
Research Project: "Studying the Anticancer Effects of Ceramide Analog 315"
Mentors: Maryam Foroozesh, Ph.D., & Navneet Goyal, Ph.D. (chemistry)



Sharon Ogonna
Amarillo, Texas
Major: Neuroscience
Research Project: "Using bis-MPA as a platform for novel drug delivery systems"
Mentor: Stassi DiMaggio, Ph.D. (biology)

Alumni **HIGHLIGHTS**

Project Pathways Alum Participates in COVID-19 Research

Imari Parham is a 2019 graduate of Xavier University of Louisiana and a former XULA BUILD *Project Pathways* Scholar and Research student. He is currently attending Meharry Medical College School of Medicine in Nashville, Tennessee.

As the global pandemic worsened, Imari and his classmates recognized the disproportionate impact of the COVID-19 virus on communities of color, particularly the Black and African American communities. Wanting to understand why communities of color were hit so hard, Imari and his classmates decided to research pandemic preparedness and its effects on the African American community.

Though Imari originally entered medical school to research orthopedic surgery techniques, he has found a new interest in public health research during this project.

With several faculty members and principal investigators (PIs) assisting them, Imari and his peers began a grassroots outreach campaign to survey four specific groups of individuals to better understand how they prepared for the COVID-19 pandemic and how it has affected them.

They wanted to identify the main information sources used by the participants, understand financial implications, potential stressors, the impacts on mental and emotional health, and learn about the steps taken by the participants to prevent and reduce infection.

Utilizing surveys and scheduled interviews, their study has delivered preliminary results with a few emerging trends, including that participants were hesitant to get tested, and used the test results of others to gauge the likelihood of them also being infected. For example, if an individual's very social friend has a negative test result, he/she assumes to also be negative since they took fewer risks. They also found that most participants felt "somewhat prepared" in their response to COVID-19, and most participants looked to the Centers for Disease Control and Prevention (CDC) to provide relevant information. However, a significant number of participants also admitted to getting their news from social media and not always from verified accounts. Imari and his team have also found a general sense of nervousness surrounding testing and research, particularly when discussing a potential vaccine.

Imari and his peers have found resilience in the community, with many individuals making their own masks and forming small home-based businesses to supplement their income. Most of their participants admit to using masks, despite the discomfort, to curb the spread.

"[Many said] they said they don't do it for themselves, they do it for the people around them," Imari said.



Imari Parham ('19)





Project Pathways Alumni Featured as Speakers on a Virtual Panel

Project Pathways alumni were featured as speakers during a panel discussion on WeAreHBCUs: Know Your Tribe during the summer.

[WeAreHBCUs](#) is a non-profit organization that is “dedicated to celebrating HBCU students and alumni through amplifying their voices.” The organization works to “increase the visibility of HBCU excellence, create a space for Black thought leadership, and build community across all HBCUs.”

The event featured alumni panelists from HBCUs across the country. During the panel discussion, the XULA graduates discussed health and wellness, leadership, and advocacy.

Myles Bartholomew, a 2020 graduate of XULA BUILD *Project Pathways* who majored in biology, was a featured speaker. Myles was joined on the panel in a separate breakout session by fellow XULA BUILD alumnus Bryan Redmond.

Myles spoke as a member of the “Know Your Fight: Paths to Advocacy” breakout session. As the Student Government Association president at Xavier during his senior year, he offered great insight into leadership advocacy for social justice.



Myles Bartholomew ('20)

While at Xavier, Myles participated in research with his mentor, Dr. Harris McFerrin, investigating the “Effects of SHP-1 Signaling on Macrophage Function and Overall Survival During Sepsis.” Myles is currently attending Brown University to pursue his doctorate through Brown’s Molecular Biology, Cell Biology, and Biochemistry Ph.D. program.

Alumnus Bryan Redmond, a XULA BUILD *Project Pathways* Scholar who graduated in 2018, participated in the “Know Your Health: Black Health & Wellness” breakout session.



Bryan Redmond ('18)

Bryan, a Memphis native, graduated from Xavier with his B.S. in psychology. Currently, he is pursuing his Ph.D. in neuroscience at the University of Rochester, School of Medicine and Dentistry. At the University of Rochester, Bryan participates in clinical neuro-ophthalmologic research focused on optimizing visual recovery techniques in cerebrovascular accident patients, which will hopefully lead to helping stroke patients recover their vision.

Bryan also participated in the Black in Neuro sponsored virtual panel “Grad Journey: Making the Most of Your Degree Experience” on July 29, 2020. The panel was held in recognition of #BlackinNeuroWeek.

As a *Project Pathways* scholar, Bryan performed research with his BUILD mentor, Dr. Stassi DiMaggio. For Bryan, mentorship is an integral part of the journey.

“When you get to the finish line, don’t forget who pushed you at the start,” Bryan said in response to inquiries about mentorship.

When exploring the subject of social justice, Bryan called for action from medical professionals and future STEM students.

“Now is the perfect time to change the status quo. Your lab coat won’t protect you... no one knows that you are a doctor when you are pulled over or walking the streets,” Bryan said, citing the need for activism such as “White coats for Black lives” to bring meaningful change.

Research Enrichment Core







Research Enrichment Core

The Research Enrichment Core (REC) strengthens Xavier's supportive environment for students to overcome barriers to success through curriculum enhancement, mentor training, and post-baccalaureate research training, in addition to increased faculty research competitiveness.

Faculty Development: **Adapting**

The COVID-19 pandemic forced institutions to close in the middle of the spring 2020 semester. Professors were left scrambling as their lesson plans for the semester were no longer relevant. Many had to adapt to virtual instruction, which proved challenging for those who had never used the associated technologies for a virtual learning environment. To help in this transition, Xavier's Center for the Advancement of Teaching and Faculty Development (CAT+FD) put together emergency programming to help faculty learn to navigate remote instruction. Over the summer, CAT+FD held multiple virtual workshops. Using input from faculty and students, the Center continues to update programming to reflect practices found to be efficient. All faculty were required to complete the training. Xavier ensured that all faculty and students had access to necessary technological resources, in some cases even buying Wi-Fi hotspots.

CAT+FD hosts an independent website, which includes navigation information for online and hybrid instruction courses. Xavier adopted the Quality Matters higher education rubric as the standard that faculty should adhere to for their online and hybrid courses. Faculty can access these materials and other training through the University's Brightspace portal.

The pandemic changed daily life for almost all of the nation, but the Xavier faculty were determined to continue offering students the best education possible. Programming is continuously being modified and adapted, and faculty attend any new training while incorporating new methods as they teach.



BUILD Post-Baccalaureate Technicians

Cohort 6, 2020-2021



Caryn Butler

May 2020

Independence, Louisiana

Major: Public Health

Research Project: "Quantifying Double Minute Chromosome Touch Patterns in Hi-C Sequencing Contact Maps"

Mentor: Matthew Hayes, Ph.D. (physics & computer science)



Denise Cayton

June 2020

Corona, California

Major: Biology

Research Project: "Oxidative Stress and LRP-1 Signaling in Retinal Pigment Epithelial Cells"

Mentor: Partha Bhattacharjee, Ph.D. (biology)



Gregory Hodge

December 2019, Technician 2019-2020

Baton Rouge, Louisiana

Major: Chemistry Pre-Med

Research Project: "PEGylation of monodisperse bisMPA nanomaterials for drug delivery applications"

Mentor: Stassi DiMaggio, Ph.D. (biology)



Jeré Williams

December 2020

Major: Chemistry & Chemical Engineering

Research Project: "Poly (propylene carbonate Interpenetrating Cross-Linked Poly (ethylene glycol) based Polymer Electrolyte for Solid-State Lithium Batteries in Medical Devices."

Mentor: Lamartine Meda, Ph.D. (chemistry)



Kayla Strong
May 2020
St. Louis, Missouri
**Major: Chemistry/
Chemical Engineering**
Research Project:
"Investigating the
Structure-Property
Relationships of
Phosphonium-Based

Solid Polymer Electrolytes for Lithium Ion Batteries"
Mentor: Asem Abdulahad, Ph.D. (chemistry)



Ly Tran
May 2020
New Orleans, LA
Major: Biology
Research Project: "Infrared
Imaging of Diseases"
Mentor: Samrat Dutta,
Ph.D. (chemistry)



Ma'Lik Woodland
May 2020
Pascagoula, Mississippi
Major: Chemistry
Research Project:
"Design and Synthesis of
Biomedical Applicators"
Mentors: Galina
Goloverda, Ph.D., &
Vladimir Kolesnichenko,
Ph.D. (chemistry)



Taylor Perry-Crawford
May 2020
Major: Psychology
Research Project: "Social
Sciences: Spilling the T:
Understanding the Sexual
Experiences of Black Trans
Women"
Mentor: Krista Mincey,
Dr.PH. (public health)



Theresa Beamon
December 2020
Major: Biology
Research Project: "Role of
Cytochrome C in Apoptosis
During Breast Cancer
Treatment"
Mentor: Tulasi Ponnappakkam,
Ph.D., & Maryam Foroozesh,
Ph.D. (chemistry)

BUILD Post-Baccalaureate Technicians

Cohort 5, 2019-2020



Camilla Do

May 2019

Major: Chemistry Pre-Med

Mentor: Navneet Goyal, Ph.D. & Maryam Foroozesh, Ph.D. (chemistry)

Current Status: *Camilla* is studying at Baylor College of Medicine in their Ph.D. Program in Chemical, Physical & Structural Biology



Edelmy Marin

May 2019

New Orleans, Louisiana

Major: Chemistry

Mentor: Lamartine Meda, Ph.D. (chemistry)

Current Status: *Edelmy* is currently pursuing her Ph.D. in chemistry at Stony Brook University.



Jessica Griffin

May 2019

Baton Rouge, Louisiana

Major: Chemistry

Research Project: "PEGylation of monodisperse bisMPA nanomaterials for drug delivery applications"

Mentor: Matthew Hayes, Ph.D. (physics & computer science)

Current Status: *Jessica* is continuing her studies at the Southern Illinois University (SIU) MEDPREP Program.



Zoela Leon

May 2020

Major: Neuroscience

Research Project: "Role of Neurokinin Receptors in the Modulation of Nicotine Withdrawal Symptoms and Reward in Mice"

Mentor: Meda Lamartine, Ph.D. (chemistry)

Current Status: *Zoela* is attending Southern California University of Health Sciences, Doctor of Chiropractic Program, as of January 2021.

Post-Baccalaureate Technician **HIGHLIGHTS**

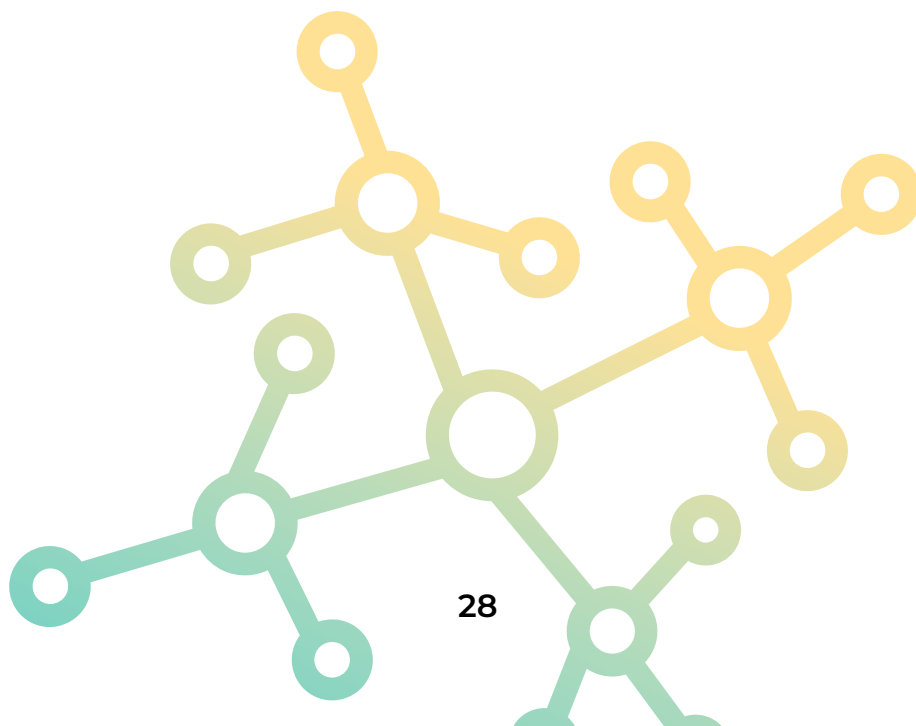
At the beginning of July, *Project Pathways* alumna Edelmy Marin was interviewed by Abriendo Brecha TV as part of their highlight segment featuring talented Honduran nationals located worldwide.

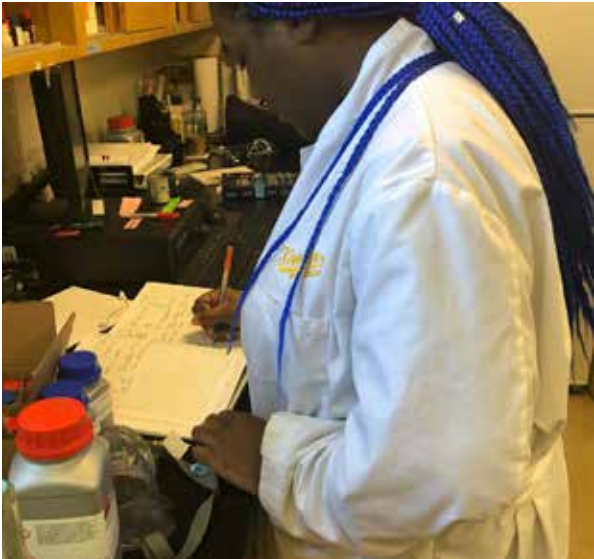
Edelmy graduated from Xavier University of Louisiana with a B.S. in Chemistry in 2019 and was a BUILD Technician for the 2019-2020 cohort. As a member of the lab of Dr. Lamartine Meda, she took part in research for the National Aeronautics and Space Administration (NASA)-funded lithium battery project. She credits her mentor, Dr. Meda, with developing her skills as a chemist and researcher, and building her confidence, not just in chemistry but also in her everyday life.

In the interview with Abriendo Brecha, conducted in Spanish, Edelmy was asked to expand on her journey of excellence and how her culture as a Honduran has influenced her. She recounted how her experiences at Xavier led her to work with NASA researching “High Voltage Manganese Oxyfluoride Electrode for Application in Lithium-ion Batteries.” She is particularly drawn to inorganic chemistry research and deeply appreciates the training opportunities provided to her through both NASA and NIH BUILD funding.

While at Xavier, Edelmy has given multiple presentations of her research at local and national conferences, and even conducted research in France. She has also acted as a mentor to undergraduate researchers in Dr. Meda’s lab. Recently, she had her second scientific publication released. The work published by Edelmy and her team can be read in “Materials Chemistry and Physics, Volume 247” or online at [Sciencedirect.com](https://www.sciencedirect.com).

Edelmy was offered scholarships for multiple graduate programs and is now attending the Ph.D. program in Chemistry at Stony Brook University in New York.





Institutional Development Core







Institutional Development Core

The Institutional Development Core (IDC) provides resources for key offices and centers across the campus that assist with students' academic support, professional development, and undergraduate research activities.

HIGHLIGHTS

Programming in a Pandemic

The COVID-19 pandemic meant that academia had to adapt essentially overnight. College campuses were closed, and students were sent home. Xavier University of Louisiana's administrators, faculty, and staff quickly decided that they wanted to return to campus, and so rapidly formulated and implemented guidelines and procedures to keep the Xavierite community safe. Installations of plexiglass, sanitation stations, signage, and more were completed to aid preventative measures.

Though Xavier is a relatively small institution, with an enrollment of 3,384 students in fall 2020, de-densification measures moved many aspects of student life to virtual platforms. Classes were a mix of in-person, remote, and hybrid instruction. Most activities, services and events had to be moved online. The health and safety of the students, staff and faculty are Xavier's number one priority, while the University continues to strive to offer outstanding programming to students.

The Center for Undergraduate Research and Graduate Opportunity (CURGO) at Xavier often collaborates with *Project Pathways* to support students in their preparation for graduate programs in the biomedical sciences and coordinate undergraduate research efforts. CURGO hosted many virtual development events during the spring, summer, and fall 2020 semesters, including graduate school fairs.

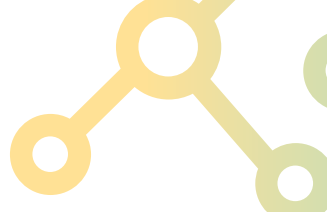


Step-Up Week

Xavier's Office of Career Services (OCS) seeks to provide students with the tools and services to help them succeed past graduation. Step-Up week was a virtual triad of development events. The programming was initially scheduled to occur at the end of October, but the events were postponed to November due to a hurricane. Dialogues about diversity in the workplace, professionalism in a virtual environment, and resume/CV writing workshops were part of the programming.

Research Scholars Showcase

CURGO modified its programming to still allow students the opportunity to showcase their research at Xavier. CURGO hosted its annual Research Scholars Showcase virtually on October 15 and 16. The Research Scholars Showcase is an opportunity for BUILD and McNair scholars to present the exciting research they have completed to the Xavier community with graduate program recruiters as special guests. Students present their research as poster or oral presentations. Posters and oral presentations are critiqued by faculty/staff judges with prizes awarded.



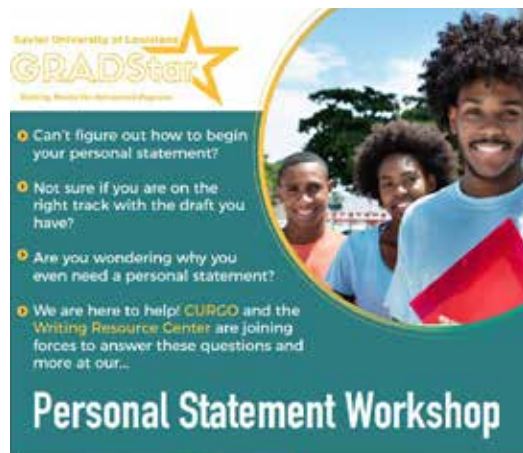
2020 Summer Student Showcase

In November, Xavier's Office of Career Services (OCS) launched a social media campaign detailing the research that Xavierites had participated in during the summer of 2020. Several *Project Pathways* students were featured for their work through the BUILD Program. The campaign called attention to a virtual discussion about disparities in health care, featuring Xavier alum Dr. Derek J. Robinson ('98), Chief Medical Officer of Blue Cross Blue Shield of Illinois. Dr. Robinson spoke about programs implemented by Healthcare Service Corporation (HCSC)/Blue Cross and Blue Shield of Illinois, Montana, New Mexico, Oklahoma and Texas to combat healthcare disparities and offer students information about career opportunities within the organization.



CURGO Workshop: Preparing a Strong Personal Statement

This virtual workshop was presented by a University of Rochester representative. One of the biggest challenges to applying to a graduate program is completing a personal statement or essay. This workshop reviewed the following: elements of a personal statement; how to identify the adjectives that describe a program's ideal candidate; brainstorming and incorporating life experiences that influence current worldviews; and preparing an outline.



AALLIYAH CELESTINE
MATHEMATICS
JUNIOR



SHARON OGBONNA
NEUROSCIENCE
JUNIOR

Administrative Core







Administrative Core

The Administrative Core provides administrative oversight of the other three cores, oversees program evaluation, and ensures that there is on-going communication with the NIH, the CEC, and the other members of the DPC.

Highlights



In year 5 of the BUILD grant (July 1, 2018-June 30, 2019), the BUILD Program funded the following research pilot projects:

- **Dr. Asem Abdulahad**, Chemistry Department: Electroactive biomaterial hydrogel composites for advanced drug delivery applications in the treatment of cancer
- **Dr. Jayalakshmi Sridhar**, Chemistry Department: Design and development of CDK9 and VEGFR2 dual kinase inhibitors as anti-angiogenic agents
- **Dr. Zhe Wang**, Chemistry Department: Translational research on the complexed electrochemical quartz crystal microbalance (C-EQCM) platform for biomarker detection in the rapid and accurate clinical breast cancer diagnosis and monitoring
- **Dr. Samrat Dutta**, Chemistry Department: Developing imaging agents in the mid-infrared for histological image analysis
- **Dr. Erika Perez**, Psychology Department: Modulation of neurokinin signaling to reduce nicotine consumption

In year 6 of the BUILD grant (July 1, 2019-June 30, 2020), the program funded the following research pilot projects:

- **Dr. Mehnaaz Ali**, Chemistry Department: Exploration of flavin binding nucleic acid aptamers as molecular switches
- **Dr. Partha Bhattacharjee**, Biology Department: LRP-1 and insulin receptor signaling in the retina
- **Dr. Samrat Dutta**, Chemistry Department: Infrared imaging of cancer cells
- **Dr. Thomas Huckaba**, Biology Department: Developing imaging agents in the mid-infrared for histological image analysis
- **Dr. Joanna Hays**, Biology Department: The functional characterization of DNA mismatch repair missense variants
- **Dr. Heather Williamson**, Chemistry Department: Exploring the mechanism of auto-reduction of high-valent Myoglobin and its implication protein oxidation and disease

In year 7 of the BUILD grant (July 1, 2020-June 30, 2021), the program funded the following research pilot projects:

- **Dr. Partha Bhattacharjee**, Biology Department: Oxidative stress and LRP-1 signaling in retinal pigment epithelial cells
- **Dr. Hector Biliran**, Biology Department: Understanding the transcriptional and epigenetic regulatory control of human epithelial cell survival and anoikis via functional characterization of the TLE1 corepressor complexes
- **Dr. Matthew Hayes**, Physics and Computer Science Department: Evaluating double minute chromosomes as markers for predicting cancer evolution
- **Dr. Anup Kundu**, Targeted delivery of doxorubicin liposomes for the treatment of chemoresistant breast cancer
- **Dr. Erika Perez**, Psychology Department: Topiramate treatment to reduce nicotine consumption and withdrawal



Samrat Dutta, Ph.D.

Dr. Dutta's laboratory is interested in simplifying the histological analysis of disease in the mid-infrared.

Currently, sophisticated imaging algorithms are used for generating infrared histological images, but even with such advances, reliable interpretation of images to diagnose diseases in the clinical setting remains a challenge. Dr. Dutta's laboratory has a different approach than the current paradigm in collecting and interpreting infrared images for medical diagnosis. Instead of relying on the sample's intrinsic vibration, the research team is developing environment-sensitive contrast agents that can be absorbed by the sample, located and analyzed unambiguously using a unique infrared biomarker on the agents. Such an innovative approach has the potential to make histological infrared imagery easier and useful in medical practices.

Preliminary work by Dr. Dutta's team has shown that the contrast agents can help segregate cancer cells and image tissues with minimal data processing.

The broad goal of Dr. Dutta's laboratory is not only to make a tangible contribution in medical imaging but also to provide a platform particularly for underrepresented individuals in developing an interest in building a career in non-invasive diagnostic imaging services.



Joana Haye, Ph.D.

Dr. Haye's lab focuses on "The Functional Characterization of DNA Mismatch Repair Missense Variants."

The goal of Dr. Haye's research group is to provide further insight into the effects of germline mutations on DNA mismatch repair (MMR) protein function. Overall, the approach facilitates rapid analysis of human missense variants in easily manipulated yeast strains. The ability to distinguish pathogenic mutations from simple polymorphisms that have no effect on protein function is essential. Additionally, the lab will sequentially introduce human MMR genes into yeast strains. The human genes will be replacing the yeast genes, and the lab will determine if mismatch repair function is restored when the complete set of human mismatch repair genes are present in yeast.

Replacement of the yeast genes will facilitate engineering mutations in the identical sites found in humans. A reconstituted human MMR system in yeast has the potential to be used to characterize human missense mutations in the easily manipulated yeast system. To date, replacement of the yeast counterparts with the entire MMR complex has not been reported.

The experiments are performed using well-established assays in molecular biology. So far, the lab has analyzed some mutants, which demonstrate varying levels of MMR defects. These mutants will be further studied to see how protein levels are affected and if protein levels and MMR function can be restored. This type of data is also valuable for identifying carriers of the mutations within families and the determination of appropriate strategies to monitor individuals harboring mutations.



Erika Perez, Ph.D.

Dr. Perez's lab focuses on understanding the neurocircuitry involved in addiction, primarily to nicotine and alcohol.

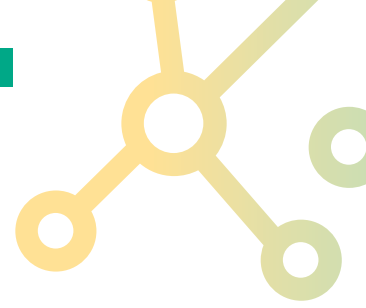
The overall goal is to pinpoint possible receptor systems that can be targeted for drug cessation aids. Currently, the lab is trying to understand if antagonizing neurokinin receptors 1 and 3 can reduce nicotine withdrawal symptoms and, as a result, reduce nicotine consumption.

In the lab, mice are used to model nicotine dependence and withdrawal-induced behaviors. For Dr. Perez, the BUILD students who participate have played a crucial part in helping set up behavioral apparatuses to measure changes in anxiety-like, depression-like, and physical symptoms of nicotine withdrawal. The group has collected some promising preliminary data and is excited to continue the work.

Zoela Leon, a [former] BUILD Technician, was crucial in helping set up a different set of behavior apparatuses that look at nicotine use's rewarding aspects. Her work will help define whether targeting neurokinin receptors will correct the imbalances produced in the reward circuitry by chronic nicotine use.

Another BUILD student is spearheading a separate initiative to understand if Black students use electronic cigarette equipment to smoke products such as cannabidiol and tetrahydrocannabinol oils. The lab is interested in looking at the intersection between nicotine vaping and marijuana vaping. This is important given that Black youths are statistically less likely to be vaping nicotine products, and therefore their vaping behavior has not been a focus of study. However, if nicotine-related equipment and products are being used to smoke other substances, then it is very likely that the risk associated with vaping is currently understudied in this population.





Meet the BUILD **Team**



From left to right, top to bottom:

Top Row: *Maryam Foroozesh, Marguerite Giguette, Kathleen Morgan, Harris McFerrin*

Second Row: *Kelly Johanson, Michelle Boissiere, Nathaniel Holmes, Tracey Jackson*

Third and fourth row: *Regi Reyes, Doryne Sunda-Meya, Amy Billizon, Linda Hardy, DeMiracle Woodson*

Not Pictured: *Cecily DeFreece and Clair Wilkins-Green*



Partner **Liaisons**

Albert Einstein College of Medicine

Victoria Freedman, Ph.D.

Boston University Medical School

Fadie Coleman, Ph.D.

Dartmouth

Jane Seibel

Emory University

Amanda Marie James, Ph.D.

Icahn School of Medicine at Mount Sinai

Matthew O'Connell, Ph.D.

Johns Hopkins University

Darlene Saporu, Ph.D.

Louisiana State University Health Sciences Center

Allison Augustus-Wallace, Ph.D.

Meharry Medical College

Evangeline Motley-Johnson, Ph.D.

New York University School of Medicine

Naoko Tanese, Ph.D.

Northwestern University

Damon Williams, Jr.

Tulane University Medical School

Diane Blake, Ph.D.

Tulane University School of Public Health & Tropical Medicine

Lizheng Shi, Ph.D.

University of Chicago

Victoria Flores, Ph.D.

University of Michigan

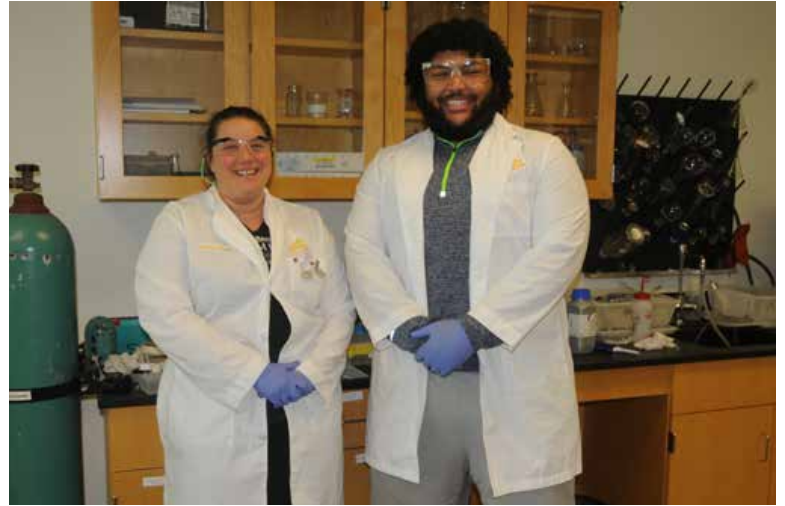
T.J. Shannon

University of Rochester

Eleanor Oi

University of Wisconsin Madison

Amber Smith, Ph.D.

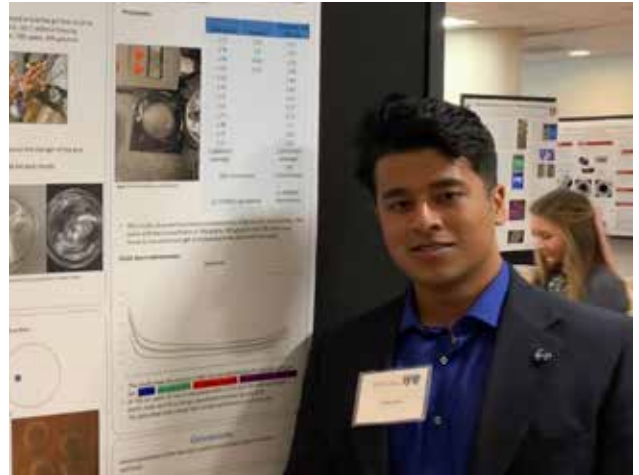
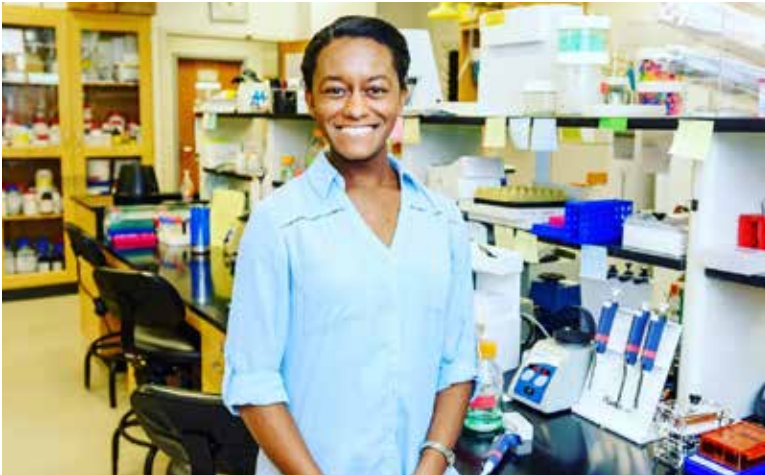




Building Infrastructure Leading to Diversity (BUILD) Program

PROJECT PATHWAYS

Building Integrated Pathways to Independence for Diverse Biomedical Researchers



Dr. Maryam Foroozesh
Lead Principal Investigator
Administrative Core and REC

Dr. Nathaniel Holmes
Assistant Provost for Student Success
Student Academic Success Office & CURGO

Dr. Marguerite Giguette
Principal Investigator
IDC

Dr. Michelle Boissiere
Education Improvement Specialist
REC

Dr. Kathleen Morgan
Principal Investigator
STC

Ms. Tracey Jackson
Associate Director
Office of Career Services

Dr. Harris McFerrin
Pilot Project Director
REC

Dr. Clair Wilkins-Green
Internal Evaluator
Administrative Core

Dr. Kelly Johanson
Co-Director
STC

Dr. Cecily DeFreece
Research Engagement Coordinator
STC

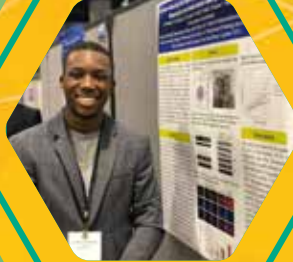
Mrs. Doryne Sunda-Meya
Program Manager
Administrative Core

Ms. Amy Billizon
Program Manager
STC and REC

Ms. Linda Hardy
Program Manager
IDC

Mrs. DeMiracle Woodson
Project Coordinator
STC and REC

Ms. Regi Reyes
Marketing & Communications Specialist



PROJECT PATHWAYS



DIVERSITY PROGRAM CONSORTIUM
Supported by the National Institutes of Health