

Emerging Scholars TRANSFORMING the Future

2019 Annual Report

Reflecting on the Past Year

As the Leadership Alliance community reflects upon the past year, we have much to celebrate. First and foremost, we should take great pride in the reality that the Alliance works!!! While there are varied definitions of the term alliance, the most common refer to a combination of entities or individuals unified to pursue and or promote mutual goals. It is clear that the institutional members of the Leadership Alliance are unified by a mutual and shared commitment to diversify the Academy and the scientific and industry research workforce. As a consortium of institutions, it is our goal to train, mentor and provide direction to the next generation of college faculty, research scientists



and industry leaders. While we work on our individual campuses, we unite as Minority Serving and Research 1 institutions because we believe that academic talent and promise can be found in all spaces within the larger Academy. It is our shared goals that continue to provide the framework for the success of this very important alliance.

An alliance is only as strong as the actors who work together to maintain bonds, sometimes across differences, in order to accomplish the mission and goals of the Leadership Alliance. We are fortunate to benefit from continuity among the pool of institutional representatives, but also to gain insights from those new to the Alliance. It is clear that the collection of individuals and institutions that forms the Leadership Alliance understands the reciprocal benefits that accrue for building community across diverse institutions.

This past year, we have continued to bear witness to the power of the Alliance. More than 400 students benefited from the Summer Research – Early Identification Program. What a joy it is to hear them share their academic and professional journeys when they return each year to the National Symposium. Their shared narratives are awe-inspiring and serve as guideposts for the many undergraduates who benefit from their stories. This represents the essence of why we do our work.

Special thanks to all who share the passion, vision and mission that continue to inform the direction of the Leadership Alliance. Whether you are an Advisory Board Member, Campus Liaison, or Summer Research Coordinator, your contributions are appreciated. We are most fortunate to be led by an amazing Executive Director and staff members who effectively and efficiently manage the day to day activities and myriad responsibilities required to ensure the continued success of the Leadership Alliance.

Cynthia Neal Spence, PhD

Associate Professor, Spelman College UNCF/Mellon Programs Director Institutional Coordinator and Executive Committee Chair, The Leadership Alliance

Transforming the World

am by nature an optimist. I see a bright future despite the challenges of today!! This vision is due in part to the wondrously talented undergraduate students who, with the support of a community of faculty mentors, graduate students and administrators push the boundaries of research in all disciplines. They have the power to transform the world in which we live. The Leadership Alliance is honored to be a part of their academic journeys. This year, during which we welcomed more than 400 diverse undergraduates in our largest national Summer Research Early Identification Program, is no exception.



I am ever grateful to the Leadership Alliance community

of faculty, staff, administrators and funding partners. Their dedication empowers students to step into their excellence and become the emerging scholars who will shape our future. This is clearly evidenced in stories in this report that, among other things, reveal our ability to leverage the unparalleled resources at our partner institutions, Spelman College and Xavier University of Louisiana. They have introduced the concepts of research in the humanities and social sciences to first-year students, through engagement with special collections unique to their institutions. I am equally impressed with the ability of faculty from Montana State University to guide students on an exploratory process of a living laboratory in Big Sky Country.

Each year, I am inspired by our Doctoral Scholars, alumni who have obtained their PhD or MD-PhD degrees, who through their social justice approach to their scholarship

and research are able to amplify their voices against injustice and engage in a relentless pursuit of excellence and innovation. We are nearing 600 alumni who are actively shaping our future. Four compelling stories of our scholars' local and global impact are highlighted in this report. You will be amazed as to how they are addressing health disparities; engaging in critical conversations about race and identity; standing up for what is right; and mentoring the next generation.

I know the future will be bright because I believe that the impact our emerging scholars are making will contribute to shaping a prosperous, inclusive and sustainable future that affords an opportunity for everyone to achieve their full potential. I invite you to learn more about the impact of these transformative experiences within our community of scholars.

We are with them every step of the way, from undergraduate to research career, through the programs featured in this report.

Medeva Ghee, PhD

Executive Director, The Leadership Alliance Assistant Professor of the Practice of Behavioral and Social Sciences Brown University



Q&A with Zaria Evans, *What is Research?* workshop and 2019 *First-Year Research Experience* participant at the University of Virginia

What did you learn about research careers during What is Research? that you didn't know before the workshop?

"I have always wanted to help the community in medicine, but I thought that the only way was to become a medical doctor. I learned that research is a huge way to contribute to the medical world without practicing medicine. For so long, I thought that scientists sat in a lab on their own. *What is Research?* taught me that doing/completing research is done with a team."

How did What is Research? influence your decision to apply for a summer research internship as a first-year?

"The information given in the **What is Research**? workshop helped me realize that doing research is not only discovering something new but it is also finding a solution to a question that has never been answered. I knew that I wanted to be a part of a team to solve a problem as soon as possible. This was my motivation to apply for summer research internships."

Launching Research Careers Through Academic Year Workshops

The journey of every emerging scholar starts somewhere. At the Leadership Alliance, training and mentoring begins with our Academic Year Workshop program. These flexible and exportable workshops are high-impact:

What is Research? introduces participants from all disciplines to the principles and practices of research. They discuss the motivations for conducting research – such as discovery and problem-solving - as well as the myriad contexts in which research takes place. Participants also learn about the application process for pursuing paid summer research opportunities. Our surveys show a statistically significant increase in participants' interest in seeking out summer research experiences and pursuing a Ph.D. Indeed Zaria is an example of the impact and importance of introducing the idea of research to students in their first year of college. Collaborative Learning explores the peer learning process and introduces strategies for forming a successful study or research group. Students who participated in this workshop reported an increase in their understanding and comfort with starting and maintaining a collaborative learning group.

In 2019, Brown University, Carnegie Mellon University, Morehouse College, Spelman College, the University of Chicago and Vanderbilt University collectively hosted nearly 300 emerging scholars in the What is Research? and Collaborative Learning workshops.

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Sparking Dynamic Research Through the First-Year Research Experience (FYRE)

e know how important early exposure to research is for students to be competitive for graduate school. That's why we created the First-Year Research Experience (FYRE) in 2015 to open new doors to research through our Summer Research - Early Identification Program. 2019 was another banner year for FYRE. Thirty emerging scholars conducted research across nine research sites in STEM as well as the humanities and social sciences. In addition to having the largest group ever, last year we welcomed three new research sites to the FYRE family: Montana State University, Spelman College, and Xavier University of Louisiana.

The FYRE program continues to be a launching pad for ongoing research. This year participating scholars researched everything from HIV to the First Amendment and Nigerian film to renewable energies. Our data show that more than half of FYRE students continue to conduct research. whether through the SR-EIP or in another setting. The data also show that 50% of the students we've tracked from the first two cohorts (2015 and 2016) are continuing on to graduate school. In 2019, we welcomed four FYRE alumni into PhD programs at Alliance Institutions. Jessica Tolbert entered the PhD program in Biochemistry at Dartmouth College, Logan Northcutt entered the PhD program in Quantitative and Chemical Biology at Vanderbilt University, Hamilton Green is pursuing his PhD in the Integrative **Biomedical Graduate Program at Vanderbilt** University, and Gabrielle Akcelik entered the PhD program in Integrative Neuroscience at the University of Chicago.



The HBCU Experience: Immersing emerging scholars in archival research

Spelman College and Xavier University of Louisiana continue to be trailblazers by hosting two students each in the humanities and social sciences all from Claflin University's class of 2022. We look forward to seeing how these four emerging scholars shape the future.



LEFT TO RIGHT:

Keighla Pope, Research Topic: Spelman Transformations: Performing Antigone Through the Years

Halee Barnes, Research Topic: Rediscovering Anne Cooke; The backbone for Spelman Theatre

JaMariya Mason-Price, Research Topic: Issa Bop or Flop: The Influence of Hip Hop Fashion

Jasiah Ballenger, Research Topic: This is Not US: Considering the First Amendment in the Media's Misrepresentation of Black/ African American Activists

2019 FYRE research sites included: Columbia University, Dartmouth College, Howard University, Johns Hopkins University, Montana State University, Spelman College, the University of Virginia, Vanderbilt University, and Xavier University of Louisiana Left to right: Johari Dean-Lindsey, Theo Colbert, Cameron Ramnarine, Yelibech Lagombra Padín, Jack Plewa, Daniel Lugo Rodriguez. The photo was taken in Yellowstone National Park.

Emerging Scholars Shaping the Future of Research

Montana State University reinvigorated its summer program this year, welcoming first-year students as part of their larger SR-EIP cohort. These students hailed from Farmingdale State College, North Central College, Morehouse College, and the University of Puerto Rico's Arecibo, Humacao and Ponce campuses. They researched vital topics such as how to increase crop yields and the way honeybees fight off viral infections. They also mapped out their future careers. According to Jack Plewa (North Central College class of 2021), the SR-EIP "paved the way for my future." Yelibech Lagombra Padín (Universidad de Puerto Rico – Arecibo) had a similar experience: "At first I wasn't sure if I wanted to go to graduate school, but this program showed me that graduate school would be a great opportunity for my future plans." We look forward to the transformational impact that Jack, Yelibech, and the rest of the 2019 cohort will have on the research workforce.

45% never participated in a research program

before.

84%

of students are members of underrepresented racial and ethnic groups.

47%

of SR-EIP Alumni are pursuing or have completed PhD's.

Identifying Scholars of the Future

he Summer Research – Early Identification Program (SR-EIP) launches transformative research careers by providing undergraduates with the mentorship, research skills, and confidence to thrive in graduate school and succeed in the research workforce. We welcomed 420 students into the SR-EIP. This cohort - our largest ever – will transform the research workforce through its diversity. Eighty-four percent of participants were members of an underrepresented racial or ethnic group, nearly twothirds (62%) were women, 36% were first-generation college students, and more than half (52%) were Pell Grant recipients.

We know that this diverse cohort will transform the research workforce because SR-EIP students matriculate to graduate school at a high rate. Currently, 47% of our SR-EIP alumni are enrolled in or have completed a PhD or MD-PhD program. Our nearly 600 Doctoral Scholars are shaping the future in all research workforce sectors, including academia, private industry, and the public sector.

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Leadership Alliance Mellon Initiative: Expanding the horizons of research

he Leadership Alliance Mellon Initiative (LAMI) transforms the research workforce in the humanities and social sciences by cultivating, mentoring and training a specific cohort of underrepresented students in those disciplines to prepare them for competitive doctorallevel training programs. Through the support of the Andrew W. Mellon Foundation, the Onassis Foundation USA, the Titus Foundation and a partnership with the UNCF/Mellon Programs, we place LAMI participants in the SR-EIP cohorts of 13 Alliance institutions, including our two newest sites, Spelman College and Xavier University of Louisiana.

The LAMI program broadens participants' research opportunities in the humanities and social sciences. Roughly twothirds of our LAMI students are conducting independent research for the first time. Our data show that these students "catch up" to their more experienced peers through the mentoring and training of the LAMI program. Moreover, LAMI participants - be they new to research or seasoned research veterans - become more confident in planning their research and graduate careers.

Gabriel Rivera, Brown SREIP, Universidad de Puerto Rico, Rio Piedras, Class of 2020

LAMI Day: Coming together to shape the future of research in the Humanities and Social Sciences

LAMI students gathered to explore research in the Humanities and Social Sciences at Yale University. They enjoyed a presentation from and had a discussion with Dr. Riché Barnes (Associate Professor of Gender Studies at Mount Holyoke College), whose work — *Raising the Race: Black Career Women Redefine Marriage Motherhood and Community* — was a focal point of the summer's Digital Humanities Working Groups. Students also met with Yale faculty and graduate students to discuss careers in academia.

> of LAMI participants are ready for graduate school.

97%

63%

participants have matriculated into or completed PhD programs.

2019 LAMI sites include: Brown University, Columbia University, Harvard University, Johns Hopkins University, Princeton University, Spelman College, Tufts University, the University of Chicago, the University of Virginia, the University of Pennsylvania, Vanderbilt University, Xavier University of Louisiana, Yale University.

 $3.5 \mathrm{x}$

the number of

students reporting

"high" research

skills at the end of

the summer versus

the beginning



Leveraging Transferable Skills

Dr. Leah Banks, a postdoctoral fellow at Cold Spring Harbor Laboratories, located in the environs of Long Island, NY, had a personal interest in the cancer research she was conducting. In a story shared with *The Today Show*, she candidly spoke about the emergency surgery to remove a benign brain tumor. While this research was fulfilling and helped her to overcome this difficult time in her life, it became clear that Leah wanted to leverage the transferable skills from her research experiences and translate them into developing the next generation.

By attending the Career Development Workshop, Leah writes, "The workshop was great in that it provided career options that covered academia, research as well as careers off the bench. In addition to the types of careers that were offered, it was great to learn how to appropriately note your transferable skills and breaking those down into technical, hard and soft skills to make yourself stand out when applying to jobs."

Currently, Dr. Banks is cancer-free and has obtained a position nested within the Whiting School, as an Assistant Director of Life Design for Biomedical Engineering students at Johns Hopkins University.

Career Development Workshop: Launching the next wave of researchers

The Career Development Workshop was designed to enhance participants' verbal communication, improve their CV/resume, and expand their network of colleagues, mentors and role models. We have employed the following evidencebased programming informed by previous participants and our evaluation data: storytelling, career-oriented mentoring and skill development.

When participants leave our workshop, they have enhanced their professional identity through networking and mentoring, developed knowledge about all career paths to support informed career decision-making, and identified the necessary tools and skills to enter various career paths successfully. There is also a sense of belonging that develops through these authentic interactions, as described by one participant: "Attending the career workshop allowed me to meet a diverse group of people with very different stories to tell. I felt understood and welcome, the development workshop provided me a space in which I felt I belonged to a community that is supportive of me and my goals."

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Dr. Fatima Rivas, St. Jude Children's Research Hospital Dr. Abdollah Dehzangi, Morgan State University

Grant Writing Coaching Groups

he Leadership Alliance National Symposium offers mentoring for faculty. Our Grant Writing Coaching Groups are a novel approach to writing NIH and NSF proposals that involves communities of practice and iterative oral feedback. Coaches work with junior faculty from Minority-Serving Institutions to engage them in critical, yet supportive, discussions about their specific aims, the type of proposal they are submitting and a plan going forward that ensures the submission of their proposals.

We welcomed seven faculty participants who joined two groups based on their research areas, and each group was assigned a coach. Coaches Dr. Jeffrey Engler (Vice **President for Special Projects** at Council of Graduate Schools), and Dr. Gustavo Arrizabalaga (Director of Trainee Recruitment, Development and Diversity in Pharmacology and Toxicology at the Indiana University School of Medicine) shared their grant writing experience and subject matter expertise with the faculty participants. In addition to grant writing support, the groups created an opportunity for peer mentoring. Ongoing virtual group meetings throughout the academic year followed the initial coaching sessions. Surveys to assess the impact of the coaching groups were administered after groups have been in place for at least six months and the data collection is ongoing.



Coaches Jeffrey Engler (top left), and Gustavo Arrizabalaga (top right) shared their grant writing experience and subject matter expertise with faculty participants. Taylor Phillips-Jones, Howard University Edward Wiggins, Xavier University of Louisiana



The Leadership Alliance National Symposium: Emerging scholars shaping the research of today and tomorrow

magine walking into a convention center filled with over 600 emerging and established researchers who collectively form a demographic quilt representative of our diverse society. With an emphasis on empowering our young scholars to position their research in a social justice framework, undergraduates, graduate students, and doctoral degree recipients from all walks of life demonstrated, through their research and scholarship, the potential to harness their intellect, creativity and knowledge to enhance and expand our understanding of the world in which we live and address the inequities that impede progress.

The Leadership Alliance National Symposium Research Conference is a unique event that specializes in building community among an outstanding cohort of undergraduates who have just completed their Leadership Alliance summer research experience at toptier institutions across the country.

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Emerging Scholars Shaping the Future at the Leadership Alliance National Symposium Research Conference



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We are the longest-running national conference that enables and empowers undergraduates to pursue research in all fields by continuously tracking and mentoring them throughout their academic and career pathways. In so doing, we are able to provide a tiered mentorship model where graduate students and alumni who completed their doctoral degrees, who were all undergraduates in the program, return to mentor and be mentored.

We are meeting acritical need in that more than half of our undergraduate participants (58.7%) have

never previously participated in a conference. At LANS, they built the critical presentation skills to go out and continue sharing their research. Between our new LANS coaching program and our many networking opportunities, our undergraduates readied themselves for the next steps their careers and made connections with senior administrators, and students.

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Dr. Yaihara Fortis Santiago Dr. Edgardo Sanabria-Valentin Dr. Teresa Ramirez Dr. Raquel Castellanos

Doctoral Scholars

Leadership Alliance Doctoral Scholars are alumni of the SR-EIP who have completed their PhD or MD-PhD degrees. Nearly 600 alumni are transforming the world. The majority of our scholars are in tenure track positions.

Impact Far and Near

Our Doctoral Scholars have an impact as far away as Africa - supporting a woman in South Africa who is living with HIV - and as close to home - fighting for a sister who was diagnosed with a brain tumor.



Dr. Damani Piggott, who completed two SR-EIP's at Brown University and earned his MD-PhD at Yale University, recounted a story of delivering HIV medications and a food packet to a 52-year-old woman named Kaya from KwaZuluNatal. She was too weak to travel to the nearest medical clinic. She gave birth to 10 children; three of her children had passed away. Dr. Piggott affirmed that "it is due to humbling experiences with persons like Kaya that I felt called to work on HIV. I would not be who I am and I would not be where I am in life without the Leadership Alliance." Dr. Piggott is currently the Assistant Dean for Graduate Biomedical Education and Graduate

Student Diversity and Professor of Medicine at the Johns Hopkins School of Medicine.



Dr. Raquel Castellanos, who completed SR-EIP's at Columbia University and Hunter College and obtained her PhD from the Albert Einstein College of Medicine, is the oldest of five siblings. She shared that, as a first generation kid, she became very good at translating for her family. Although her parents did not have access to an education beyond the 6th grade, they knew this was the key to their success. Because of her research experience that exposed her to the language of science, Dr. Castellanos served as the bridge between the physicians and her family during her sister's fight with cancer. Her sister recovered and Dr. Castellanos pursued a PhD

in the biomedical sciences and is continuing to serve as an advocate to students from all walks of life. At LANS, she imparted, "If I can somehow contribute to the education of students from all backgrounds, then I am helping to level the playing field. I am helping to shake things up!" Dr. Castellanos is currently a Scientific Program Administrator at the American Association for Cancer Research.



Giving Voice to the Voiceless

Our Doctoral Scholars give voice to the voiceless and shape narratives that inspire students from underrepresented backgrounds to dream beyond their reality.



Dr. David Stout, who completed his SR-EIP at and obtained his PhD from Brown University, recounted on two separate occasions where he had the courage to address the direction of a project that, based on his analysis, was not substantiated. David shared, I remember what the Leadership Alliance told me... "You are smart enough...you can do this...you can change the world through research...even though someone might not agree."

On a separate occasion, he found himself in the same position — this time the stakes were higher as he was then a young professional in a government capacity. He described

his experience as follows: "I begin to express my ideologies of the wonderful research enterprise that we have here in this great country, and how the greatest minds in the world come here to learn, to teach, to conduct research, to ultimately change the world. I talk about what it means to be a researcher and how I am a product of infrastructure that they want to change. I tell them they need to change their perspective. I tell them what they don't want to hear... I have realized that only through the minds and actions of the courageous will we spur humanistic change and enlightenment." Dr. David Stout is currently a Program Scientist at the Department of Defense.



Dr. Travis Boyce, who completed his SR-EIP at Yale University and received his PhD from Ohio University, shared an experience where he was in a difficult position of standing in front of students after the Unite the Right rally in Charlottesville. Embodying the mission of the Alliance as a scholar who is transforming academia, Dr. Boyce shared his struggle with how to find the words to use this as a teachable moment that will promote productive conversations that confront the reality of race in America. Dr. Boyce is currently an Associate Professor of Africana Studies at the University of Northern Colorado.

Leadership Alliance By the Numbers 2019 Financial Summary



Doctoral Scholars by Career Sector





"It's not about perfect. It's about effort. And when you implement that effort into your life. Every single day, that's where **TRANSFORMATION** happens. That's how change occurs. Keep going. Remember why you started."

- ANONYMOUS



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Member Institutions

Brooklyn College 401-863-1474 **Brown University** theleadershipalliance.org **Chaminade University of Honolulu Claflin University Columbia University Cornell University** Dartmouth College **Dillard University** Harvard University Heritage University Howard University Hunter College Johns Hopkins University Montana State University Morehouse College Morgan State University **New York University** North Carolina Agricultural and Technical State University Princeton University Spelman College **Stanford University Tougaloo College Tufts University** University of Chicago University of Colorado Boulder University of Maryland, Baltimore County University of Miami University of Pennsylvania University of Puerto Rico University of South Florida University of Virginia Washington University in St. Louis Xavier University of Louisiana Vanderbilt University Yale University