



The National Science Foundation ALABAMA LOUIS STOKES ALLIANCE



BRIDGE TO THE DOCTORATE

IMPACT



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Our experience with the BD program has shown that this program is attractive to underrepresented minority students. Given that students' financial earning power is increased by the acquisition of a graduate degree, it is becoming increasingly easier for students to make the decision to pursue graduate studies. The BD program provides an excellent incentive for highly qualified students to pursue graduate studies with a doctoral degree as a goal.



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Dr. Louis Dale







Bridge To The Doctorate (BD) Activity A. James Hicks, Ph.D., Senior Program Director

Senior-level LSAMP alliances are eligible for Bridge to the Doctorate (BD) support. BD funding provides eligible students with financial support for two years of graduate study.

Programmatic activities for BD support must describe effective recruitment and retention strategies in STEM graduate education and must be based on current research for attracting, retaining, educating and graduating the participants. Proposers must provide documentation of past performance at the designated graduate institutional site of retaining, graduating and placing significant numbers of LSAMP graduates into STEM doctoral-degree programs. A plan for formally connecting a significant number of newly matriculated LSAMP students, including master's degree graduates, to doctoral degree programs is expected.

Successful projects must demonstrate substantive and formal connection to other NSF-funded programs, such as Centers of Research Excellence in Science and Technology (CREST), NSF research centers, Integrative Graduate Education and Research Traineeship Program (IGERT), Graduate Teaching Fellows in K-12 Education Program (GK-12), and the Alliance for Graduate Education and the Professoriate (AGEP). Successful BD projects must ensure that a substantive number of first year BD participants apply to NSF's Graduate Research Fellowship Program (GRFP). Similarly, BD applicants must present an action plan describing dollar support and sources for continuing students in years three and beyond towards doctorate degrees. Action plans identifying strategies for connecting the transfer of third-year BD recipients interested in and eligible for admission to AGEP graduate programs, if available, or other graduate programs, are required.

Recruitment of students is expected from all STEM disciplines. A concentration of students in one discipline within a cohort is strongly discouraged.

Tracking of project participants into doctoral degree programs and into the workforce, including the professoriate is also expected. Other highly valued activities include regular BD meetings, mentoring of students, resources to support annual student participation at professional meetings, seminars on productive academic efforts, demystifying degree programs and available career options. A critical mass of twelve (12) LSAMP STEM graduate students is required under this activity.

The NSF contribution to graduate student stipends is \$60,000 over two years for each of the twelve students. NSF will provide a cost-of-education allowance to the institution for tuition, health insurance and other normal fees up to \$10,500 per year for up to two years for each of the twelve students. A flat allowance of \$15,000 per award may also be requested in lieu of indirect costs.

BD proposals must include an evaluation plan. Costs for project evaluation from the flat allowance are allowable. Salary support for administrative personnel is unallowable under this funding opportunity. The maximum request per alliance for BD support is \$987,000.

All BD student support costs, including graduate stipends, should be listed on Line F, "Participant Support," on the proposal budget. All students receiving stipends must be citizens or permanent residents of the United States or its possessions.

IMPORTANT NOTE: Requests for BD support must be submitted as a new proposal in FastLane. Supplemental requests will be returned without review. BD proposals must be submitted by the lead institution of the LSAMP alliance. Successful proposals will be awarded as two-year standard grants. Residual funds from BD grants may not be reallocated to other cohorts. Annual and final reporting requirements are applicable for BD awards.

The Alabama LSAMP Program Description Louis Dale, Ph.D., Principal Investigator

The Alabama Alliance is composed of twelve (12) institutions consisting of seven (7) Historically Black Colleges and Universities (HBCU's) and five (5) majority institutions. The HBCU's are Alabama A&M University, Alabama State University, Miles College, Oakwood University, Stillman College, Talladega College and Tuskegee University. The majority institutions are The University of Alabama at Birmingham

(UAB), Auburn University, The University of Alabama (UA), The University of Alabama in Huntsville (UAH) and the University of South Alabama (USA). These institutions represent public and private, large and small and teaching and research colleges and universities. Each partner institution has a site coordinator and a management committee to implement program activities on that particular campus.

The HBCU's have significant minority enrollment (near 100%), as well as a history of educating minority students but with limited resources. The majority institutions have an abundance of research scientists and state of the art research facilities but minority enrollments at these institutions range from 12% to 28%. The Alabama LSAMP brings these institutions together in a unique way. Students from the HBCU's participate in joint research activities at majority institutions and faculty from all institutions participate in research and faculty conferences. Majority institutions are able to attract more minority students into graduate programs and minority institutions are able to provide their faculty additional faculty development activities.

The alliance has a large pool of students who are prime candidates for the BD program. Moreover, it is a senior alliance that includes graduate school awareness activities at each of its partner institutions. These activities have been very successful in raising student interest in graduate school opportunities. Many students are ready to attempt graduate study, but are hesitant because of their desire to earn money and because graduate school is still an unknown quantity. The BD program meets the students' need to earn money since it provides a \$30,000 annual stipend, thus making it an attractive program. Given that financial earning power is increased by the acquisition of a graduate degree and career options are greater, many minority students are making the decision to pursue graduate studies. This has been apparent during student recruitment for Alabama BD programs.

Alabama LSAMP has supported BD programs at five of its doctoral granting institutions as listed below:

Auburn University



Overtoun Jenda, Ph.D. Site Coordinator

Tuskegee University



Shaik Jeelani, Ph.D. Site Coordinator

University of Alabama



Viola Acoff, Ph.D. Site Coordinator

University of Alabama Birmingham



Carolyn Braswell, Ed. D. Co-Principal Investigator

University of Alabama Huntsville



Adriel D. Johnson, Ph.D. Site Coordinator (Deceased)



The Bridge to the Doctorate (BD) program provides an excellent incentive for well-prepared students to pursue graduate studies with a doctoral degree as a goal. This outstanding opportunity has made it possible for many underrepresented minority students without resources to enter graduate school and earn a doctoral degree. The impact of the BD program will be felt for a long time, as most students complete coursework and dissertation research over different periods of time.

Cohort	Ι	п	III	IV	V	VI	VII	Total
Number of Students in Cohort	12	13	13	12	12	15	12	89
Number Received Ph.D. Degrees	5	0	1	0	0	0	0	6
Number in Ph.D. programs	2	6	5	8	9	7	12	49
Number Completing Dissertations	1	0	3	4	0	3	2	13
Number Completing Course Work	1	6	2	4	9	4	10	36
Number Received NSF or Other Fellowships	4	2	3	2	6	0	0	17
Number in the Workforce/Other Programs	10	7	8	4	3	8	0	40

Bridge Program Summary

Auburn University - Cohorts I and VI; UA Huntsville - Cohort II; UAB - Cohorts III and VII; Tuskegee University - Cohort IV and UA - Cohort V

Alabama LSAMP BD Students Earning Terminal Degrees



Carma Cook



Charmaine Porter



Kimberly Kendricks



Kelvin Tolliver



Carl Pettis



Stephanie Watson

Bridge to the Doctorate Site - Auburn University



Dr. Overtoun Jenda Site Coordinator

Auburn University is a comprehensive land, space and sea grant research institution blending arts and applied sciences. It has a long tradition of academic excellence and graduate education, awarding its first undergraduate degree in 1860 and its first graduate degree in 1870. The main campus had an enrollment during fall of 2007 of 24,137. Auburn University offers degrees in 13 schools and colleges at the undergraduate, graduate and professional levels. More than 1,100 graduate faculty members have terminal degrees from 150 universities. More than 90 buildings occupy a campus of southern charm graced with stately trees and abundant flowers. Auburn University has developed into one of the largest universities in the south, remaining in the educational forefront with its traditional blend of arts and applied science and changing with the needs of today while living with a respect for the traditions and spirit that are Auburn.





Angela Bell Chemistry



Nicole Harris Materials Engineering



Carma Cook Chemistry



Mathematics



2003-2005

Derek Forston Biological Sciences



Charmaine Porter Microbiology

2008-2010



Iris Hill Conservation Biology



Jana Smith Molecular Biology



Angela Peterson Mathematics



Michele Williams Computer Science



Curtis Cain Computer Science and Software Engineering



Colby Hunter Microbiology



Jarrett Chapman Industrial and Systems



Mathematics



Timmy Sanders Mathematics



Engineering





Derek Simon Mathematics



Michael Grady Electrical Engineering



David Laurencio Biological Sciences



Kevin Simmons Computer Science



Lenese Grant Nutrition and Food Science



Cheryl Milton Mathematics



Clarisa Williams Statistic



Brittany Green Industrial and Systems Engineering



James Morris-King **Computer** Science





Bridge to the Doctorate Site - The University of Alabama at Birmingham

2005-2007



Dr. Carolyn Braswell Co-Principal Investigator

UAB is a 40-year-old comprehensive research university and medical center that encompasses 82 city blocks and has a student enrollment of more than 17,000. UAB also is home to a large graduate school, a world-renowned health care complex and more than 70 research centers, focusing on such diverse issues as AIDS vaccines and aging to the environment, urban affairs and telecommunications. UAB also offers numerous programs and services that enhance student education, including the Honors Program, Co-op Program, Study Away, Career Center and academic support services. With the city of Birmingham in their backyard, UAB students have enormous opportunity for internships, jobs and valuable hands-on experience. There are more than 200 organizations on campus ranging from academic clubs and volunteer groups to fraternities, sororities and special interest groups.





Michael Burks, Jr. Computer & Information Science



Chemistry



Christophe Jackson Christopher Lindsey Electrical Engineering



Mathematics



Aqueasha Martin Computer Science



Materials Engineering



Lindsey McCall II Materials Engineering



Melody George Materials Engineering



Hugh Percy Computer Science



Hadiyah-Nicole Green **Physics**



Stephanie Watson Civil Engineering



Chemistry/Music

Samantha Bromfield Epidemiology



Manuel Martinez Physics



Cordero Core Chemistry



Dennis Steverson, Jr. Pharmacology



2009-2011

Jaquice Hughes Civil/Environmental Engineering



Glenn Terrell Interdisciplinary Engineering



Samuel Jasper Materials Science and Engineering



Desmond Villalba Physics



Tashundra Jones Environmental Engineering



Candace Watson Civil Engineering



Alicia Kindred Biology



Kendrick White Mathematics

Bridge to the Doctorate Site - The University of Alabama in Huntsville

The University of Alabama in Huntsville (UAH) is nationally recognized for outstanding undergraduate and graduate science and technology education. Uniquely located in Cummings Research Park, a fundamental mission for UAH is to be a leader in the Southeastern US for high quality education in disciplines such as science, technology, engineering and mathematics (STEM). UAH has made the commitment to increase the number of minority students receiving baccalaureate and graduate degrees as an important priority at the university. UAH offers 26 master's degrees (18 in STEM areas), 12

doctoral degrees (four in STEM areas) and seven non-degree graduate



Dr. Adriel D. Johnson, Sr. Site Coordinator



Isa J. Alexander **Biological Sciences**



Khalid W. Holmes **Biological Sciences**



certificates.

Birvid Atkins-Warner Michael D. Francis **Computer** Science



Veronica M. Hunter Melody Y. Jackson **Computer Science**



Mechanical Engineering



Mathematics

2004-2006



Pierce J. Gibbs **Biological Sciences**

Justin M. Kelly

Computer Science

Bridge to the Doctorate Site - Tuskegee University



Biological Sciences



Victor M. Harris **Biological Sciences**



Tameka M. Walker Chemistry



Dr. Shaik Jeelani Site Coordinator



Sandrea Brundidge-Young Rozlyn Chambliss Materials Science & Engineering



Justin O. James **Electrical Engineering**



valued in excess of \$500 million.

Chemistry



Tracey Mindingall Food Science

2006-2008



Tuskegee University is an independent state-related institution of higher education. Its programs serve a student body that is coeducational as well as racially, ethnically and religiously diverse. The university offers 49 degrees including 35 bachelor's, 11 master's, a doctor of philosophy in materials science and engineering, a doctor of philosophy in integrative bio-sciences, and a doctor of veterinary medicine. Tuskegee enrolls more than 3,000 students and employs approximately 900 faculty and support personnel. Physical facilities include more than 5,000 acres of forestry and a campus with more than 100 major buildings and structures. Total land, forestry and facilities are

> Jennifer Cunningham Biology



Sharina Richard Animal Science/ Integrative Bioscience



Charles Doxley Electrical Engineering



CaLynna Sorrels Electrical Engineering



Nutritional Science



Gregory Strawder Materials Science and Engineering



Environmental Science



Tiffany Taylor Chemistry/Biochemistry









John W. Martin III

Aerospace Engineering

Eileen Rojas Aerospace Engineering Chemical Engineering



Bridge to the Doctorate Site - The University of Alabama

2007-2009



Dr. Viola Acoff Site Coordinator

The University of Alabama (UA) is a major, comprehensive, studentcentered research university founded in 1831 as Alabama's first public college. Dedicated to excellence in teaching, research and service, we provide a creative, nurturing campus environment where our students can become the best individuals possible, learn from the best and brightest faculty, and make a positive difference in the community, the state and the world. Not only is UA the oldest public university in the State of Alabama but also, in 1837, UA became the first in the state to offer engineering classes. It was one of the first five in the nation to do so and one of the few to have maintained accreditation continuously since national accreditation began in 1936. The University of Alabama is the largest university in Alabama with an enrollment of 25,580, which includes 3,869 graduate students.





Edward C. Dillon, Jr. Computer Science



Contessa S. Majors Cell Biology and Neuroscience



Alanzo Deon Granville Mathematics



Ekaette Mbong *Biological Science*



Nicole Desireae Gray Analytical Chemistry



DeAna McAdory Chemistry



Marleshia Hall Molecular and Cellular Biology



Brandon R. Morgan Mathematics



Haylee M. Hinz Biology



Kathryn Therese Picard Evolutionary Biology



Melody Kelley Chemistry



Rachel Roberts Metallurgical and Materials Engineering

Bridge Students Successful in Securing Graduate Research Fellowships

- 1. Angela Bell, Ph.D. student at Auburn University, was a recipient of the NSF GK-12 Fellowship.
- 2. Carma Cook, Ph.D. student at Auburn University, was a recipient of the NSF GK-12 Fellowship and NSF Chemistry Research Fellowship.
- 3. Nicole Green, Ph.D. student at UAB, was the recipient of the National Physical Science Consortium Graduate Fellowship.
- 4. Kimberly Hobbs, Ph.D. student in the Biotechnology Science and Engineering program at UA Huntsville, was the recipient of the 2009 UNCF NASA H. J. Jenkins Fellowship (\$30,500/yr for 3 years) for doctoral students.
- 5 Christophe Jackson, Ph.D. student at UAB, was the recipient of the NSF Graduate Fellowship award.
- 6. Melody Kelly, Ph.D. student at the University of Alabama, was the recipient of the NSF Graduate Fellowship award.
- 7. Kimberly Kendricks, Ph.D. student at Auburn University, was a recipient of the GK-12 Fellowship.
- 8. Kathryn Picard, graduate student at the University of Alabama, was the recipient of the NSF Graduate Fellowship award.
- 9. Ms. Tameka Walker, Ph.D. student in the Biotechnology Science and Engineering program at UA Huntsville, was a recipient of the American Chemical Society Fellowship (\$26,000).