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John H. Hopps Jr. Research Scholars Program

**Rahmelle Thompson
MOREHOUSE COLLEGE INC.**

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Final Report**

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Dr. John H. Hopps Jr. Defense Research Scholars Program

Morehouse College



Hopps Defense Scholars Program's Final Report to

The United States Department of Air Force

FA 9550-09-1-0529

October 14, 2014

Final Performance Report FA9550-09-1-0529

Sixteen Scientific Researchers: Carving out the Research Careers of a Lifetime.

Introduction

The Dr. John H. Hopps Jr. Defense Research Scholars Program continues to advance the core federal and Department of Defense missions of increasing the participation of underrepresented minority students in scientific research and ensuring minority participation in emerging scientific and technological fields.

The fourth cohort, an exemplary cadre of competitive scholars, has achieved the distinction of having the highest percentage (87%) of Hopps Scholar graduates to gain admission into STEM graduate programs to date. The outstanding achievements and accomplishments of this cohort may suggest that with the proper guidance and support of a research training program such as the Hopps Scholars Program, underrepresented minorities, particularly African American males, will exceed all expectation as they steadily begin to positively impact the number of minorities entering research careers. Their scholarly pursuits, current updates and program highlights since the last report are listed included.

In order to ensure that the Hopps Scholars Program continued on an upward trajectory, several additions and improvements have occurred that have enhanced the effectiveness of the Program.

The Hopps Scholars Program desired to have an external evaluation completed in order to provide pertinent feedback concerning the participants, activities, mentoring and progress of the overall Program. The Sage Fox Company was hired in June 2014 to begin that process and through evaluation has begun. The Project Coordinator position was split and two people were hired to help meet the Hopps Scholars Program's needs. One coordinator has developed an extensive tracking mechanism that would allow the Hopps alumni and well as current students to be able to include past research activity and keep the Program abreast of their current endeavors. An update of the website has also occurred to make it more interactive. Another coordinator has assisted with the Hopps Graduation Banquet and travel for the participants and guest speakers for the seminar series. The Hopps Graduation activities

The Hopps Training Symposium in February of 2014 was very well received and included speakers who were aligned with and had served in the military. Several members of the fourth cohort returned to participate on a panel to discuss their journey from Morehouse College to graduate school and research careers.

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Current Updates of the Fourth Cohort

The Fourth Cohort of the Dr. John H. Hopps Jr. Defense Research Scholars Program consisted of 16 innovative young researchers with strong and highly technical research skills that have

provided them with entry into top tier research institutions. This diverse group consisted of 4 math majors, four chemistry majors, three psychology majors, 1 dual degree physics major, 1 computer science major and three biology majors. The following list includes a current biographical sketch of each member as well as his graduate school or employment status during this period.

Table A

COHORT #	YEAR OF STUDY	# OF SCHOLARS	NAME	ACADEMIC PROGRESS/STATUS
4 Fund Code: 248910	2009 – 2013	16	David Brickler	2nd Year graduate student: Clemson University. PhD Program in Human-Centered Computing. Recipient of the Clemson University Diversity Fellowship and Graduate Research Assistantship.
			Joel Coppadge	2nd Year graduate student: North Carolina State
			Wallace Derricotte	2nd Year graduate student: Emory University
			Denarius Frazier	2nd Year graduate student: Columbia University. MA Program in Biotechnology.
			Brantley Fulton	2nd Year graduate student: Oregon State University
			Theodore Hicks	Project chemist for KEMRON, an environmental remediation services company.
			Kari Jackson	Research Analyst, Statistician for Majaica LLC. Accepted into University of Maryland Eastern Shore PhD program in Animal Sciences/Ecology.
			Vallmer Jordan	2nd Year graduate student: Louisiana State University
			Roy Llewellyn	2nd Year graduate student: University of Michigan. MS/PhD Program in Applied Physics. Recipient of the Imes-Moore Fellowship, \$20,000.
			Elijah Martin	2nd Year graduate student: University of California San Francisco. PhD Program in Developmental & Stem Cell Biology. Recipient of NSF GRFP.
			Raymond Perkins	2nd Year graduate student: Princeton University. PhD Program in Operations Research and Financial Engineering. Recipient of University Fellowship and Presidential Fellowship (all tuition and living costs plus \$6000)
			Jordan Showell	Research Tech at Baylor University
			Alan Tyson, II	Graduate student: IUPUI. IPREP Fellowship Appointee
			Abram Vera	2nd Year graduate student: San Diego State University. MS Program in Public Health.
			Maxalan Vickers	2nd Year graduate student: Cornell University
			Charles Wilkes	2nd Year graduate student: University of Michigan

Program Highlights 2013-2014

Fourth Cohorts Graduation Banquet 2013

A wonderful graduation ceremony was held at The Marriot Marquis on May 1, 2013. Dr. Roderick Pettigrew, Director of the National Institute of Biomedical Imaging and Bioengineering, was the keynote speaker. His topic of discussion involved the diversity of science. All of the 16 members of the Fourth Chort were receptive to his presentation and enthusiastic in their questions.

Annual Spring Break Graduate School Tour

The Annual Spring Break Graduate School Tour is conducted each year to expand Hopps Scholars' perspectives on the breadth of available graduate training opportunities, and to facilitate new relationships between the Hopps Program, Morehouse College, and the colleges and universities visited. From March 9 – 15, 2013, thirty-eight (38) Scholars (including the 6th Cohort) and twelve (12) Morehouse College faculty and staff traveled to New Orleans and Baton Rouge, Louisiana, and Houston, Texas to visit Tulane University, Xavier University College of Pharmacy, Louisiana State University, the University of Texas' MD Anderson Cancer Center, Rice University and Baylor College of Medicine. Scholars also participated in the Baton Rouge Citywide Research Symposium hosted by LSU that coincided with our Graduate School Tour.

SageFox Evaluation

SageFox Consulting group was contracted to conduct a summative evaluation of the Hopps program. Evaluation activities included collecting qualitative and quantitative feedback on the program from the perspective of Hopps Program staff, alumni and existing participants. Over the course of the last five months, SageFox has successfully obtained IRB approval for all qualitative and quantitative data collection activities, developed, tested and launched the online alumni survey instrument and conducted focus groups / interviews with existing participants and staff. SageFox has begun analysis of these data (qualitative and quantitative) with the aim of producing two publishable documents capable of showcasing the programs successes and lessons learned. The survey is currently live, and as such, SageFox is in the process of collecting data on alumni from across all former Hopps Program participants. Analysis of survey feedback will begin once all of the data has been received and downloaded from the online survey platform. Data will then be disseminated in the form of a final report to Hopps Program Staff, which will then be forwarded to the Department of Defense.

Project Coordinator's Performance

The Dr. John H. Hopps, Jr., Defense Research Scholars Program hired Janet Meadows on March 14, 2014, to assist with the coordination of the Hopps Scholars Senior Graduation Reception and

Banquet, held Saturday, May 17, 2014 at the Ray Charles Performing Arts Center, Morehouse College. The coordinator's responsibilities included planning, with professional detail, a reception and banquet/dinner for parents, faculty, mentors and guest honoring the graduating Hopps Scholars seniors. This included a poster presentation exhibit and program, held in the auditorium of the Ray Charles Performing Arts Center, highlighting the graduates' majors, honors/awards and their acceptance to a doctoral program. Also, assisting with securing the keynote speaker, Dr. Jimmie Lee Davis, Jr., The Lead Systems Engineer for the Mitre Corporation, creating new technology for the Department of Defense was a key responsibility along with other professional planning duties, which included procurement of the venue, development and mailing of the invitations, managing the RSVP list, planning the menu, managing the event/venue preparation and set-up and marketing the event with banners and posters. Those duties also included the design and purchase of plaques, awards and certificates.

Along with planning the Hopps Scholars Senior Graduation Reception and Banquet, the Project Coordinator assisted with planning, coordinating and implementing the layout for a new brochure. This included assisting with writing and editing the content, as well as coordination of printing.

Dr. Alfred Watkins was hired as a Project Coordinator in February 2014. In his role, he assisted with the revamping and launching of the hoppsscholars.org website in advance of the February 27, 2014 Hopps Research Training Symposium & Recruitment Fair. The website's Symposium page facilitated access to faculty and student registration forms in fillable PDF formats, provided general information about the symposium, and displayed an active map of the area near and around the Morehouse campus.

Dr. Watkins analyzed the data infrastructure of the Hopps Scholars office that is stored in paper files, electronic files, and internal documents for the purpose of creating a Hopps Scholars tracking system. The system was designed in the style of a social network with user accounts created for the current scholars, former scholars, and staff members. The site has the capability to allow updates to one's own personal profile, the ability to view parts of others' profiles, and to facilitate the exchange of scholar-to-scholar, scholar-to-staff, and staff-to-scholar communication during and beyond the scholars' undergraduate experience. The system, called HoppsNet, stores basic contact information, such as email addresses and phone numbers, research accomplishments and experiences during school semesters and in the summers, and scholastic information such as college majors, minors, graduations, degree pursuits, fellowships and awards. Progress made in development of the HoppsNet system included design and implementation of a relational database in MySQL, development of staff and scholar user accounts, population of staff and scholar contact information, implementation of features such as user login, staff contact information look-up, and scholar contact information look-up. As features were developed and tested, they were made available online for use by the staff.

5th Annual Hopps Training Symposium 2014

The 5th Annual Hopps Training Symposium was held on February 27 – 28, 2014. It was well attended by students from the Atlanta University Center (AUC) and Xavier University, officials

from the Air Force Research Laboratories, and faculty from several top-tier research institutions. The 2014 Symposium theme was “Mission Critical: Equipping Minority Students to Lead a STEM Innovation Revolution.” The Keynote Speaker was Mr. Lloyd Reshard, who is retired after 26 years of service with the Air Force Laboratory, his last 6 years in the capacity of Chief of Munitions for the Areodynamics Science Branch. Mr Reshard spoke on “Leveraging Your Network to Power the STEM Innovation Revolution.” Dr. Anthony Depass, an Associate Professor of Biology at Long Island University, facilitated a workshop on successful interventions for broadening underrepresented minority participation in STEM disciplines. Dr. Vernon Morris, a Professor of Chemistry at Howard University, spoke about atmospheric climate change. The Morehouse Hopps Alumni Panel included seven graduates who are currently in various levels of graduate school. Their candid remarks were very informative to the younger cohorts. The following Hopps Alumni served as panelists.

1. Delawrence Sykes, 2012 – 3rd Year graduate student at Indiana University
2. Jabari Elliott, 2012 – 2nd Year Ph.D. student at Washington University, St. Louis
3. Vallmer Jordan, 2012 – 1st Year graduate student at Louisiana State University
4. Mykel Green, 2012 – 2nd Year Ph.D. student at Georgia Institute of Technology
5. Pierce Gordon, 2012 – 2nd Year Ph.D. student at UC Berkeley
6. **Wallace Derricotte, 2013** – 1st Year Chemistry graduate student, Emory University
7. **David Brickler, 2013** – 1st Year Computer Science graduate student, Clemson University

Both Wallace Derricotte and David Brickler, members of the 4th cohort, provided insightful remarks during the Symposium. This Symposium provided nearly (50) Hopps Scholars and other minority students and scientists opportunities for networking, receiving critiques of their research presentations, and interacting with visiting faculty from graduate schools and officials from the Department of Defense. These engagements provided important feedback to our students as they continue to prepare to present their research findings at other scientific conferences and symposia.

The Andrew Young Center for Global Leadership Morehouse College, 2014 Procter & Gamble Leadership Academy Conference:

On June 26, 2014, members of the 4th cohort, including Raymond Perkins and Wallace Derricotte, were invited to be part of a panel at this conference to provide leadership and mentoring for the various high school participants as well as the younger members of the Hopps Scholars Program who were present.

Conclusion

The Dr. John H. Hopps Jr. Defense Research Scholars Program continues to inspire the next generation of minority research scientists. We are extremely proud of the Fourth Cohort's accomplishments and they continue to inform us of their status and achievements in graduate school and the work place. We plan to continue to assist them in their scholarly pursuits and help place those few members who continue to pursue entrance into graduate school in the near future. This particular Cohort has continued to serve the Hopps Program by mentoring their younger members and forming a supportive and cohesive unit among themselves. The SageFox Company has expanded their evaluation of the Hopps Scholars Program and the results will be shared with the Department of Defense immediately after it is finished. We are currently in the planning stages for the Hopps Symposium on October 27-28, 2014. Representatives from the Department of Defense will be invited and their researchers so that they will be able to maintain contact with the Scholars and keep them abreast of employment opportunities. Members of the fourth cohort are also planning to attend several national research conferences where they serve as recruiters for their graduate schools. This includes the Annual Biomedical Research Conference for Minorities in San Antonio, Texas in November 2014. Members of the 4th cohort are still eligible to spend summers at U.S. Air Force Research Laboratories such as Eglin Air Force Base in Florida and at U.S. Army Research Laboratories such as Aberdeen Proving Ground in Maryland. We are open to any suggestions offered to improve the Hopps Scholars Program and we are eternally grateful to the Department of Defense, Mrs. Evelyn Kent and Mr. Ed Lee for all of their guidance and dedication to the Hopps Scholars Program.