



**CONGRATULATIONS** to the 2013 Science and Mathematics Academy participants. The scholars began their academic journey at Harris-Stowe State University with the White Lab Coat Induction Ceremony. Dr. Beronda Montgomery, associate professor in the Department of Biochemistry and Molecular Biology at Michigan State University, served as the opening keynote speaker. Thank you Dr. Montgomery for celebrating with us.

During the summer program, the academy students were engaged in science, technology, engineering and mathematics related activities taught by various Harris-Stowe State University faculty members; heard presentations from guest lecturers; and engaged in weekly STEM field experiences. Also, as a special treat for the academy students, Mrs. Sandra Burton and the members of the Boeing-St. Louis Aerospace Alumni Chapter of the National Society of Black Engineers graciously hosted two Sunday evening “meet and greet” events. Mrs. Burton, thank you for the hospitality.

Finally, the scholars ended the program by showcasing their respective group projects at the closing Science Expo. Dr. Michael T. Railey, associate dean and associate professor of Multicultural Affairs, Family and Community Medicine at Saint Louis University School of Medicine served as the closing keynote speaker. Thank you Dr. Railey for celebrating with us.

As the Harris-Stowe State University 2013 Science and Mathematics Academy students prepare and study today there are numerous opportunities to uncover in the future. Scholars, I am proud of each of you. Keep moving forward because the sky is the limit!

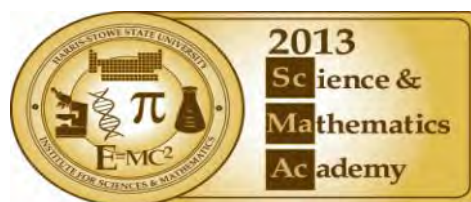
Best,  
 Dr. Tommie Turner  
 Director of the Institute for Sciences and Mathematics

2013 Science and Mathematics Academy Participants



**Inside this issue:**

Background.....	2
Purpose.....	2
White Lab Coat Ceremony.....	3
STEM Field Experiences.....	3
Student Perspective.....	3
Closing Science Expo.....	4
Team Work & Being a Hornet.....	4



## BACKGROUND

Numerous first generation underserved students have difficulties adapting to college life due to lack of mentoring, cultural exposure to higher education and academic preparedness from high schools. Universities are being critiqued on their graduation rates in order to continue receiving state and federal funding. Academics, tuition and graduation rates are combined together in higher education. Thus, universities are constructing the academic infrastructure to assist matriculating students toward graduation.

## PURPOSE

Harris-Stowe State University received the largest grant in the history of the institution in August 2008 when the National Science Foundation Awarded the University an incredible \$2.498 million for increasing retention in the areas of STEM. On July 5, 2009, Harris-Stowe kicked-off the inaugural summer component of the grant, the Academy for Science & Mathematics for incoming freshmen. The NSF grant provided room and board, allowances for meals and a stipend for each student. All academy participants were expected to be fully engaged in the daily summer enrichment activities and not allowed to work externally except on weekends. The Academy for Science & Mathematics prepared approximately 40 incoming freshmen from the St. Louis metropolitan area for the rigor and successful completion of first-year science and mathematics college courses through academic instruction, supervised study sessions, field experiences, various seminars and guest speakers. The students specifically focused on introductory concepts of biology, chemistry, mathematics and physical science taught by Harris-Stowe State University faculty members. After the academy, participants had a better understanding of Harris-Stowe State University's academic expectations and resources. The purpose was to prepare the students to develop greater interest, confidence and persistence in the study of foundational STEM courses.



## THE 2013 SCIENCE AND MATHEMATICS ACADEMY WHITE LAB COAT CEREMONY

The Academy for Science & Mathematics provided the selected participants with a sense of community, camaraderie and self-identification as STEM majors. Borrowing from the tradition of the White Coat Ceremony established in 1993 by The Arnold P. Gold Foundation at Columbia University's College of Physicians and Surgeons, each academy participant began the summer enrichment program by receiving their Science and Mathematics Academy laboratory jacket and certificate of membership. Dr. Beronda Montgomery, associate professor in the Department of Biochemistry and Molecular Biology at Michigan State University, served as the opening keynote speaker.

## SCIENCE, TECHNOLOGY, ENGINEERING AND MATH FIELD EXPERIENCES

The students had an opportunity to experience diverse STEM field experiences and meet STEM professionals. The STEM field experiences ranged from competitive team engineering challenges to biodiversity of plants to the history of aviation. These engaging adventures included traveling to Parks College of Engineering, Aviation and Technology at Saint Louis University, Litzsinger Road Ecology Center and the James S. McDonnell Prologue Room at the Boeing Company.



### STUDENT PERSPECTIVE

My experience attending the Science and Mathematics Academy was life changing. Going into the academy I did expect to be mentally challenged. However, I quickly learned that being a college student was no joke. The Science and Mathematics Academy taught me how to be an independent worker, and to think outside the box. One thing I greatly appreciated about the Academy was the hands on and academic help that was offered throughout the entire program. Overall, the Academy gave me a great sneak peak of what college life would consist of; not to mention the long nights and early mornings. The Science and Mathematics Academy was an honorable experience, and I would recommend the program to any upcoming freshmen.

-Rick'L Bell



### 2013 SCIENCE AND MATHEMATICS ACADEMY CLOSING SCIENCE EXPO



At the cumulating Science Expo, the students and Harris-Stowe State University faculty highlighted their group research projects to the university academic community, family and friends. Dr. Michael T. Railey, associate dean and associate professor of Multicultural Affairs, Family and Community Medicine at Saint Louis University School of Medicine served as the closing keynote speaker.



#### TEAM WORK & BEING A HORNET

In addition to studying hard, the students also participated in a variety of team building activities including constructing a bridge so that they could “cross the river.” During the semester, the students have multiple opportunities to get involved in campus life and show their Hornets spirit. Recently, they volunteered as face painters during the 2013 Homecoming Carnival. Even Dr. Dwyane Smith, principal investigator and Dr. Lateef Adelani, co-principal investigator of the HBCU-UP grant participated in the face painting festivities. Go Hornets!

