

EMU McNair Challenger

December 2016 Edition

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Eastern Michigan University McNair Scholars Program



EMU McNair Staff

Dr. Heather Neff, Ph.D.,
Director
hneff@emich.edu

Kimberly Brown, M.A.,
Program Specialist
Kbrown4@emich.edu

Stacey Gullion, B.A.,
Graduate Assistant
sgullion@emich.edu

Aryka Rice, B.A.,
Graduate Assistant.
arice14@emich.edu

McNair Program
1011 Hoyt Hall
Ypsilanti, MI 48197
(734) 487-8240

McNair Matters

TEAM CHALLENGE

Presentations:
December 9, 12-2,
Halle Auditorium

End of Fall Party

December 9, 6:30 -?
Neff's homestead

Semester Break!

**MLK Celebration
McNair Presentation**
January 16

TRiO DAY Celebration

Friday, January 20
10:00 to 2:00
Halle Library

Research Seminars

begin on January 27
Cadets: 12-1pm
Interns: 1-2pm
Hoyt Classroom

Getting it done!

While all of us gear-up for final exams and last papers, two of our scholars are also preparing to graduate! Brialle Ringer and Iris Vincent share how they made it to the finish line!



Brialle Ringer (Social Work) & Iris Vincent (Women's Studies)

Brialle says...

"I will graduate with Highest Honors from the Honors College and Departmental Honors in Social Work (BSW). One of my proudest contributions to EMU is how I have raised awareness about college homelessness on our campus and advocated for improved support of these students. I am overwhelmed, excited and relieved to have made it to this point. It's been a lot of hard work and long nights and now my work has paid off. I'm ready to see what the next chapter of my life has in store.

McNair certainly played a role in keeping me motivated to go above and beyond what was expected of me in college. McNair was one of the first communities where I was surrounded by like-minded people that all supported my academic goals. It was truly inspiring to have a group of scholars that were underrepresented students kicking butt in school and really making the world better with their research. I also had a great mentor in **Dr. Marti Bombyk!**

Never doubt your ability to accomplish what your heart desires!"

Iris says...

"I honestly didn't think I would make it to the end — I'm really proud of myself. I will graduate with a Bachelor of Arts degree in Women's and Gender Studies. There were plenty of times in my college career where things got really tough and it seemed better to quit school. But I persevered — I wanted to prove to myself that I could do it. I'm so thankful for the supportive people who have come into my life. McNair was one of those driving forces that helped me believe in myself.

The most valuable thing I received from McNair was the academic atmosphere that isn't wrapped in the stereotypical "elitism." I was surrounded by peers who were going through similar circumstances. That made me feel more comfortable. I have already applied to eight doctoral programs in Women's and Gender Studies.

To my fellow scholars, I say find your passion. I know that's WAY easier said (or typed) than done. I would encourage everyone to *find support in the things and people you love and love you*. And don't be afraid to ask for help!" My mentor, **Dr. Marilyn Corsianos**, was wonderful!

McNair Seniors Visit Grad Schools!

Several of our scholars were selected to attend graduate school visits this fall. **Victoria Fisher** and **Allante Moon**, pictured below, shared their experiences with us!



Victoria Fisher

“I had the tremendous opportunity to visit Ohio State University through the Graduate and Professional Student Recruitment Initiative program. This program gives high achieving students from programs like McNair a three-day crash course into OSU, including personal statement workshops, panel discussions with current graduate students, a tour of prospective graduate programs, and keynote speakers. The visit with my prospective graduate program consisted of a tour of the university, meetings with the career management office, the Faculty Director of the Masters of Accounting Program, the Director of Diversity and Inclusion, and I attended a lecture and had lunch with current graduate students. I was also given information about current faculty I could connect with, including the first African American woman to earn her Ph.D. in Accounting from Ohio State. With this being my first graduate school visit, I didn't know what to expect, but the experience was wonderful and I learned about the university through the differing perspectives of the students and faculty. I am very grateful I had this opportunity, because I have made tremendous connections and I have been given the tools to submit a strong graduate school application. Thank you to the McNair Program for everything.”



Precious Humphrey now works for the **National Science Foundation** (read more below!).

Allante Moon

“I was one of only 30 scholars from around the U.S. selected to attend the all-expenses-paid Healthy People Penn State Research Conference/Expo, from October 12-15th at Penn State University. The conference was an amazing opportunity to learn about the cutting-edge research the faculty are doing at Penn State, to have lunch with current graduate students and to speak with them about their grad school experience. I also met one-on-one with faculty members that I was interested in working with, and visited the Center for Health Care Policy Research. We even saw a wonderful Nat King Cole Tribute Jazz show featuring Ramsey Lewis. I would definitely recommend that McNair Scholars to apply for this conference for next year!”

An Internship Became a Great Job!

This past summer, intern **Precious Humphrey** (Chemistry) was chosen as a summer intern for the **National Science Foundation** in Ann Arbor. From May to August, she worked in the exposures lab, testing products to determine whether they are safe for the environment. At the end of the summer, the NSF offered Precious a job! For now, she works part-time, but when she graduates she will become a full-time employee while pursuing her graduate studies

Alumnus Spot Starlight

*This month, we asked McNair Scholar **Christopher Haskin** to share his story of reinvention, dedication, and success. Christopher graduated with a B.S. in Chemistry in 2014, and is getting ready to graduate with his Masters in Chemistry. Christopher was also recently awarded a grant that will fund his research with drones which can measure airborne pollutants in the ozone.*

“As a young man, I was a true knucklehead. My focus was as far away from academics as you could get. I was smart and excelled in classes when interested, but for the most part I despised the seemingly endless days in high school. At 17 I was expelled from Dexter High School. The next year I took my GED without having ever studied for it and scored in the top 1% of the nation for that year. Afterward I began working odd construction jobs.

Eventually I decided to try school again, and enrolled at Washtenaw Community College (WCC), and then transferred to EMU. While attending school, I was working as a cook at Cousins Heritage Inn in Dexter. I found I was good in the kitchen and became really interested in fine dining. Before I even attended my first class at EMU I dropped out, went back to WCC, and took culinary classes. The following fall I found myself in Hyde Park, New York, at the top culinary school in the country, The Culinary Institute of America. In July 2004, I received an Associate’s Degree in Culinary Arts and Restaurant Management. Over the next nine years I worked my way up from cook to executive chef in kitchens in Maine, New York, Massachusetts, Michigan, and Florida.

I returned to Eastern in 2011 to join the dietetics program while working as a Regional Food Service Director for one of the major senior living companies. After losing my job due to new management, I decided to fill my extra time with some more classes. The chemistry lab interested me from the beginning, and many times on my way to work after class I found myself wishing I could stay in the lab. I took some more chemistry classes, and by the summer I had changed my major to chemistry. I never looked back.

One day I got an email inviting me to a McNair information session. I thought, *What could I lose by showing up and listening?* Here’s the answer: **I would not be where I am today without McNair.** I grew up in a community where everyone worked in the auto industry. No one *ever* told me I could earn a Ph.D. — most people told me to quit wasting time and money on school and just go work in the factory! It’s amazing how much your life can change by just opening an email.

In 2014 I graduated with my Bachelor’s degree in General Chemistry, and I immediately began my master’s studies, which I will complete this year. I am currently working on applications for Ph.D. programs at several schools. I am also collaborating with my McNair mentor, **Dr. Gavin Edwards**, on drone research. Upon finishing my master’s, I hope to move right into a doctorate.

To my fellow Scholars, I recommend you **use all the resources the McNair program offers**, not just at EMU, but nationwide. There will be dark, difficult times along the way. Don’t give up – there are thousands of McNair scholars all over the country who have your back. Remember, if it was easy, everyone would do it!”



The 2016 McNair Team Challenge!

Every year EMU McNair Cadets and Recruits, working on teams of four to five students, create **research proposals** on a current topic from their academic discipline. The teams meet during the fall McNair Research Seminars to produce proposals including an **Abstract, Literature Review, Methodology, Timeline and Budget**. On December 9th the teams presented Powerpoint versions of their proposals before a jury that included Eric Reed, Director of the Eastern Opportunity Program, Elise Buggs, Director of Academic Success Partnerships, and Dr. Ethriam Brammer, Director of TRiO Student Success Services. After scoring the written proposals and the presentations, jury award selected **Team One** as the winner of the 2016 McNair Team Challenge!

Here are the abstracts from this year's competition:

Team One: **Methods of Breast Cancer Treatment Enhancements Using Genetic Therapeutic Practices**

Larry Borum, Robert Green, Semora Bell, Tahsina Shimu,

Abstract: Recent research in molecular genetics has led to the development of new approaches to cancer management, such as the use of gene therapy (Amer et. al 2014). We propose to identify the effects of gene therapy on breast cancer in mice undergoing chemotherapy. Two different methods of therapeutic practices will be analyzed: suicide and bacterial gene therapy. Suicide gene therapy involves converting a prodrug into a cytotoxic compound, and bacteria is used to disrupt and destroy solid tumors. A new delivery method will be examined using nano- technology. The nanosystems will be a more efficient and precise method to deliver the modified genes into the cancerous cells. Over the course of 10 years, we seek to assess whether or not gene therapy can enhance current cancer treatment methods.

Team Two: **Minimizing Opioid Abuse by Therapy with a DOP-receptor Antagonist**

Sam Carano, Precious Humphrey, Jesse Smith, Jaylen Taylor, Amanda Wardin

Abstract: Research has found that there is minimal differences in chemical structure of prescription opioids (legal) and non prescription opioid (illega l) . Commonly used in healthcare settings, opioid abuse is common due to the different receptor subtypes innervated within the central nervous system, specifically, MOP and DOP receptors. Previous data show that MOP receptor activity provides the analgesic effects, while DOP receptor activity causes the euphoric effects during opioid use. In this research we plan to test whether or not prescribing a DOP-receptor antagonist along with oxycodone will reduce opioid abuse in mice models.

Team Three **Transgender Rights: How do You Really Feel?**

Faith Williams, Kala Sherman, Mahogany Anderson, Karess Taylor, Deziray Taylor, Courtni Montgomery

Abstract: Recent recognition of transgender rights in America has come to affect the culture in many complex ways that most are unaware of. According to a 2016 study from the New York Times, there are approximately 2.4 million adults in the United States who identify as transgender. With the topic of transgender individuals becoming more public, it is likely that the number of known transgender individuals will continue to rise. In contrast, transgender people still face a plethora of psychological and social problems due to the private ideas people have of transgender people. We will examine the private attitudes toward transgender people by distributing an anonymous survey to college students in the Midwest region. Survey questions will ask participants of their demographics (age, race, class, income,

etc.), political party association, and their opinions on critical transgender rights. Analysis of these results will help demonstrate how recognition of transgender rights have come to affect American culture.

Team Four: **The Influence Of Socio-Economic Status on Children's Mental Health**

Alyssia Hence, Jasmine Stout, Sina Webster, Ivan Lebron, and Anthony Terry

Abstract: According to Yoshikawa, Aber, & Beardslee (2012), twenty percent (20%) of children ages 18 and under are living in poverty, and “[p]overty is a critical risk factor for many of the mental, emotional and behavioral (M-E-B) disorders of children and youth” (p. 272). The hardship of living in poverty affects children because of its effects on their parents, who also often experience depression, leading to relationship conflicts. Such conflicts typically results in inconsistent discipline in the home, bringing about a domino effect where children end up with disorganized attachment issues in early childhood, and adolescent distress (Yoshikawa et. al, 2012, p. 275). We intend to explore the way that parenting styles affect the mental health of African American male students between the ages of 17 and 18 who are eligible for free school lunch through a mixed methods approach, employing a survey and individual interviews.

Team Five: **Use of Caffeine in Olympic Sports**

Chelsey Eatmon, Demarco Johnson, Yeliani Valdez, Victoria Fields The

Abstract: In the athletic world, performance is key to success. Concerns about how illegal substances are used in athletics have been a part of academic research for years, and caffeine has emerged as one of the most controversial substances under review. Caffeine has been proven to enhance performance and was on the list of banned substances from 1984-2004 by the World Anti-Doping Agency (WADA) (Coso, Muñoz & Muñoz-Guerra, 2011). Caffeine has just as many dangers and side effects as many illegal substances, and is considered as performance enhancing as blood doping. Our study will measure the effects of caffeine on male Olympic track athletes at the U.S Olympic Complex in Colorado, Springs, to determine whether it is as effective as substances banned by the WADA. The study will consist of a survey that measures caffeine intake, habituation, and performance trials. We expect to find a significant improvement in performance when the athletes consume caffeine.

Winners of the 2016 Team Challenge: Tahsina Shimu (Chemistry), Larry Borum (Physics), Semora Bell (Math) and Robert Green (Mechanical Engineering).

