

McNair Scholars Smart News

February 2014 Newsletter

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Introducing....Dr. Sylvia Torres, C.S.I.!



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Many cringe at the sight of blood and most wouldn't think of spending their days working with it — even if it didn't make them queasy! Neither statement, however, could be further from the truth when it comes to EMU McNair Scholar **Sylvia Torres**. This senior, general Chemistry major and Criminology minor from Cleveland, Ohio is working in the lab alongside her mentor, Dr. Ruth Ann Armitage, Ph.D., on a project analyzing *spectrometry as a confirmatory test for the evidence of blood*.

Sylvia is hoping to pinpoint a procedure for confirming the existence of blood as she uses Direct Analysis in Real Time, or "DART," to detect *heme*, which is found in red blood cells. Using the Kastle-Meyer, Tetramethylbenzidine (TMB) and luminal tests, she is working to develop preliminary blood tests for forensic science. Sylvia begins this process by working with dried hemoglobin and defibrinated beef blood, placed on cotton and dried for twenty-four hours, with some of the samples also soaked in bleach. "My favorite part of the project is the sample preparation and being in the lab. It's fun to work with blood; I'm really enjoying it!" Sylvia stated as she described the process of creating her samples. "I love putting chemicals together, prepping and getting my hands dirty. It's the waiting and analysis that's rough for me," Sylvia added with a big smile. The test is run two separate times with each type of sample, the plain and also the bleached. Each is analyzed to determine if heme is present on the cotton. Although the preliminary tests are finished with this project, further analysis is still needed on the bleached blood samples, coupled with extensive literary review and more testing.

Sylvia's interest in this subject was sparked by the hit television shows *CSI: Miami*, *CSI: New York* and *Criminal Minds*. She plans to earn a Master's degree in Forensics, a dream that was solidified after a forensic lab tour and instrument introduction in Ohio. She has always loved Forensic Chemistry, but her research has allowed her to experience Forensic Biology as well. "This project has opened my eyes to different opportunities beyond my interest in Forensic Chemistry. Maybe one day I'll end up in the field investigating crimes for the FBI!"

"I'd love to present my findings to some type of law enforcement, maybe even the CIA. I'd show up with my Steno pad, spectra and show them who's boss," Sylvia joked as she talked about presenting her research. While that may not happen quite yet, Sylvia will present her project, "Direct Analysis in Real Time Mass Spectrometry as a Confirmatory Test for Blood" at this year's Undergraduate Symposium.

McNair Program Contact Information

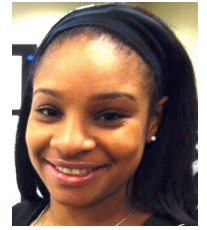
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Announcements, Events and Reminders

- ◆ Cultural Event:
The Vagina
Monologues
February 13th
- ◆ Cultural Event:
EMU's Production
The Shape of
Things
February 14th
- ◆ McNair Seminar
Guests: Mr. Keith
Jason, M.A. and
Officer Candace
Dorsey, M.A.

McNair Scholars: Where Are They Now?

“Be Fearful of Mediocrity”



Advancing your education beyond a Bachelor's degree can seem intimidating for any Undergraduate student, but those of you who plan to go beyond a four year degree should have no fear: many students have taken that leap to Graduate school and are making the transition quite nicely! **Brittany Galloway**, a 2012 EMU graduate and McNair scholar, is currently pursuing a Master's degree at the University of Alabama in Advertising and Publication, with a focus in Business. Brittany has found the differences between undergraduate education and graduate school to be challenging in a positive way. “You could say that grad school is more demanding, but I'd say that grad school just forces you to use your time more wisely, you can't lollygag anymore. This is real life and it's not always easy,” she stated.

“If you maximize the hours that you have in a day and make sure you live on a schedule, you'll love it, because there's no limit to what you can do if you love something” Brittany added. She made a point of saying that it is not always more difficult to complete your work, but the timing of your work completion can be a challenge. Time management is absolutely necessary. Sacrifice is also important, and prioritizing what needs to be done is imperative. Some classes in graduate school are structured similarly to undergraduate courses, but generally classes will be with smaller groups, very discussion-based, with the occasional straight lecture or research assignments.

When asked what else has helped her transition, Brittany said that being involved on campus, and in her new community has given her a great support network and many opportunities. “I'm a part of a national sorority, I've joined the Urban League, I volunteer with STEM outreach, and I participate in a McNair-like transition program, along with an internship with BMW North America in corporate communications,” she said. Brittany also put great emphasis on the advantages she gained through her experiences in the McNair Scholars Program, which offered her extensive research opportunities, as well as her publication in the *McNair Scholars Research Journal* (<http://commons.emich.edu/mcnair/vol5/iss1/6/>).

Making the transition to a graduate program isn't always easy, but there are always people who have come before you and are willing to help. Brittany's greatest advice is, “Have no fear; when mastering something you need the mindset that the only thing you need to be fearful of is mediocrity.”

Congratulations are in order...!

Folayan Zheng ('09) has begun her doctoral studies at Nova Southeastern University in Computer Studies.

Dara Walker ('09), recently completed her comprehensive examinations at Rutgers University and is now writing her doctoral dissertation on Detroit-area political activists.

Victor Torres ('12), has completed his M.A. at Michigan State and is applying to doctoral programs.

Anthony Sparkling ('12) will complete his M.S. in Construction Management at Michigan State in April, and will remain at MSU for his Doctorate.

Julie Krupa ('12), will complete her M.A. in Criminal Justice at Central Florida in April, and is applying to Ph.D. programs.

Jennifer Alexander ('12) will complete an M.A. at Columbia Teacher's College, and **Yasmeen Prince ('13)** will complete a Master's in Social Work at New York University this spring.

Summer Research Program Participants

Mayra Rivas ('14) worked in the laboratory of Dr. David Swain at the University of Michigan.

Marcia Mollet ('14) attended the University of Michigan's Future Public Health Leaders Program.

Undergraduate Research Stimulus Award

Carly Evich, Jazmyn Rodgers

Honors Thesis Fellowships

Chris Haskins, Jazmin Rodgers

Honors Research Fellowships

Troy Deskins, Carly Evich

Women in Philanthropy Award

Kryn Ambs

EMU Leader Scholarships

Bilal Ali, Kryn Ambs, Carly Evich, Rosaly Maldonado, Tyreese Rembert, Mikki Smith, Simone Tisder