

VT PRIME



VT PREP & IMSD EXTRA:
News & Tidbits from PREP/IMSD Family



Message From Program Directors

Welcome to the Winter edition of VT PRIME, a quarterly newsletter about the VT-PREP/VT-IMSD family. PREP (2003) and IMSD (2007) are Virginia Tech's first and most successful R25 training grants from the NIH. Together, both programs have produced 25 Ph.D.'s, 13 M.S.'s, 1 J.D., 1 M.D., and 1 DPharm. Three Assistant Professors, a NASA Research Scientist (discussed in this newsletter) and other professionals have emerged from these efforts.

This is the most anxious time of the school year for the PREP/IMSD family: PREP scholars are completing graduate school applications and IMSD scholars are entering a crucial rotation period; Program Directors are preparing progress reports for NIH; and finals are just around the corner.

This year at ABRCMS, for the second time in our 11-year participation, one of our scholars won a presentation award. This issue is also a very special one for us as we profile a long time friend of the programs, Ms. Ellie Stephens, who recently retired from VT. Along with Dr. Smith, she was there at the beginning of both PREP and IMSD. Also profiled are our most successful "matched" pair in our peer mentoring activity: Drs. Tamisha Vaughan-Whitley and Tameshia Ballard.

Suggested readings that we think you may find useful:

1. Given the events in Ferguson, MO, and Long Island, NY we recommend:

The Science Of Equality, Volume 1: Addressing Implicit Bias, Racial Anxiety, and Stereotype Threat in Education and Health Care (http://perception.org/app/uploads/2014/11/Science-of-Equality-111214_web.pdf)

2. Since this is the season of grad school applications for our scholars and our review of applicants, there is always anxiety about the GRE. Therefore, we recommend:

Extraordinary, Ordinary People: A Memoir of Family, by Condoleezza Rice.

Save the Date:

January 12, 2015 8:30AM- 3:30PM

The 12th Annual Advancing Diversity at Virginia Tech workshop will be held at the Inn at Virginia Tech and Skelton Conference Center. Please register no later than December 19 at https://jfe.qualtrics.com/form/SV_a94pxHXetVre6Et

January 12-15, 2015

Dr. Michael Johnson, Duke University Alum and 2014 MAPRS speaker, will be cohosted by IMSD, Biological Sciences, and Biochemistry as part of Virginia Tech's 2015 Future Faculty Development Program - http://www.provost.vt.edu/faculty_affairs/faculty_recruitment/future_faculty/future_faculty.html

MAPRS - May 20 - 21, 2015

Registration deadline March 9, 2015

<https://www.surveymonkey.com/s/MAPRS2015>

The 2014 ABRCMS conference in San Antonio, Texas was a blast—and our most successful year yet!



From Left to Right: Johanel Caceres (PREP), Alexis Trent (IMSD), Chanelle Brown (PREP), Leemar Thorpe (Program Manager), G. Adi Kusuma (Graduate Assistant, Program Evaluator) and Albert Hinman (IMSD PreBac)



Albert received the "Best Poster" award in Developmental Biology and Genetics. and other winners (right) showing off their awards.

VT PREP Website:

<http://www.apsc.vt.edu/academics/vtprep/index.html>

VT IMSD Website:

<http://www.apsc.vt.edu/academics/vtimsd/index.html>

Profile of Peer Mentor-Mentee.....	Page 2&3
Ellie Stephens/Evaluation Corner.....	Page 4
Alumni & Scholar News.....	Page 5



Q&A

With Peer Mentor Dr. Tameshia Ballard



Introduction

Dr. Tameshia Ballard, VT alumnus, pursued her Ph.D. at Virginia Tech in Biological Systems Engineering. She was awarded her Ph.D. in 2008. As a grad student at Virginia Tech, Dr. Ballard was a peer mentor to a former VT-PREP alumnus, Dr. Tamisha Vaughan-Whitley. Dr. Ballard is now the Director of Engineering Education, College of Engineering and Teaching, and Assistant Professor, Department of STEM at North Carolina State University.

1. What was your experience like being a peer mentor at VT?

I thoroughly enjoyed my experience as a peer mentor for VT-PREP, as it provided me an opportunity to positively influence the development of minority students pursuing a career in the sciences. On a broader level, I was happy to play a small part in the national effort to increase the representation of minorities pursuing graduate studies in STEM fields.

2. What are some qualities of an effective peer mentor/mentee?

An effective mentor is a good listener, caring, willing to help, provides constructive feedback and above all else is there to support the mentee to the greatest extent possible.

3. How did being a peer mentor/mentee relationship with Dr. Vaughan-Whitley help to facilitate a long lasting relationship between the two of you?

Our relationship began with mutual respect. I think Tamisha respected the fact that at that time I was going down the path that she ultimately wanted to follow in terms of pursuing a doctoral degree in a STEM field. In turn, I respected Tamisha's drive and determination to obtain a Ph.D. Respect is the foundation of any effective mentor-mentee relationship. I believe that because we respected each other's journey and goals, it was easy to communicate because we both knew that whatever advice or words of wisdom were given were done so with the intent to build and encourage the other. I genuinely wanted to see Tamisha be successful and she wanted the same for me and that's what made it work. Of course, sharing monthly free meals at Kabuki's courtesy of VT-PREP also helped forge the bond!

4. How do you continue to mentor in your current position?

I currently serve as a Pack Promise Coach for first year students in the Pack Promise Scholars program at NC State. In addition, I advise approximately 30 first-year undergraduate students in the College of Engineering

each year. In recognition of the importance of mentoring, I recently received funding to develop an introductory engineering design course for minority middle and high school students in which undergraduate students in the minority engineering program (MEP) in the College of Engineering at NC State serve as mentors and role models for the middle/high school students. As a part of the course, MEP mentors help guide the students through the completion of an engineering design project, with the goal of increasing the level of interest in pursuing an engineering career.

5. How has your relationship with Dr. Vaughan-Whitley influenced how you mentor today?

Being a part of Tamisha's journey and witnessing her many successes over the years has only increased my desire to continue to mentor and positively influence the lives of other young, aspiring minority students in STEM.

"I THOROUGHLY ENJOYED MY EXPERIENCE AS A PEER MENTOR FOR VTPREP..."



Q&A

WITH PEER MENTEE

DR. TAMISHA VAUGHAN-WHITLEY



Introduction

Dr. Tamisha Vaughan-Whitley is a VT-PREP alumnus with a Ph.D. in Biological Sciences. As a VT-PREP scholar, Dr. Vaughan-Whitley was a peer mentee of former VT alum, Dr. Tameshia Ballard. During their peer mentor/mentee relationship, both Dr. Ballard and Dr. Vaughan-Whitley forged a strong friendship. Dr. Vaughan-Whitley is currently a Post-Doctoral Research Fellow at Emory University School of Medicine.

1. What was your experience like being a peer mentee at VT?

Transitioning to a new environment in any capacity can be challenging. Having a mentor during this time was a critical stepping stone for me. While I had several challenges as a VT-PREP scholar as well as a graduate student, it was easier to deal with when I could talk to my mentor about it and she could relate. I was encouraged to do well and ask her for help at any time. Although we were in different fields, the struggle to relate to someone with your same cultural background was hard to

come by locally.

2. What are some qualities of an effective peer mentee/mentor?

Key qualities of any mentoring relationship on both mentee and mentor have to be understanding the needs of one another, openness, willingness to teach and be taught (after all, mentors also learn from the mentee) and most importantly, respect. I found respect to be a key component of our relationship and I think that's why we worked so well together.

However, there was one time Dr. Ballard invited herself to my apartment after one of our PREP sponsored dinners to Kabuki and

“SURPRISINGLY, MY MENTOR AND I HAD AN INSTANT CONNECTION...”

I wondered what she was doing. She was a southern belle and I was from Pennsylvania so I surely didn't have the open door policy, but we eventually laughed about it.

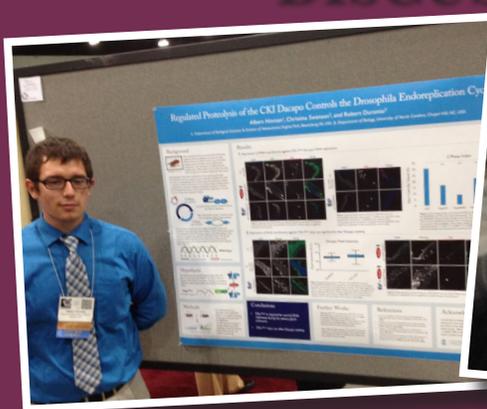
3. How did having a peer mentor/mentee relationship with Dr. Ballard help to facilitate a long lasting relationship between the two of you?

Surprisingly, my mentor and I had an instant connection when we learned we had the exact same “uncommon” name, Tamisha/Tameshia! We eventually became known as T1 and T2 (the jury is still out on who is T1 vs. T2) and could talk about anything from biochemistry (she was my tutor) all the way to planning our next vacation (which we took a lot of).

4. How do you continue to mentor in your current position?

I mentor in several different ways. One that I am extremely proud of is recruiting a mentee 2 years ago who volunteers in the lab and since mentoring her I have learned a lot about myself. What I did notice is that I treat my mentor with the same respect I was given and always push her to try harder on everything she does. Good mentoring is most times a learned behavior. I was lucky to have great mentors along the way.

TWO IMSD UNDERGRADUATE SCHOLARS DISCUSS SACNAS EXPERIENCE



Albert with his poster at SACNAS



Davia highlighting her research to a SACNAS attendee



Albert and Davia interacting with former IMSD scholar Dr. Kacie Blackman

ALBERT HINMAN (2ND Year Scholar)
Hometown: Smithfield, VA
Major: Biological Sciences
VT Lab Affiliation: Dr. Daniela Cimini

This was my first time attending SACNAS and the first national conference I have been to. From my perspective, it was extremely immense and chock-full of activity. Despite the large crowds and a loaded schedule, I had a great experience meeting inspiring professionals from the field and gaining perspectives on how to lay the course for my future life of science. At the conference I presented a poster regarding my research from UNC. Thinking back, I can't remember one particular event that stood out which could be claimed the best - all in all, it was a million tiny interactions that made the conference a wonderful experience. A cool thing at the conference was meeting IMSD members from other institutions; I did not realize how popular the programs were across the country (even at the undergraduate level).

DAVIA BLAKE (2ND Year Scholar)
Hometown: Portsmouth, VA
Major: Biological Sciences
VT Lab Affiliation: Dr. Daniel Capelluto

This was my first time attending SACNAS and I had a great experience overall. Not only did I have the pleasure of visiting California for the first time, but the conference had a great selection of colleges to talk to about their graduate programs. SACNAS is slightly smaller than ABRCMS. Therefore, I felt like I had more opportunities to speak with faculty members and recruiters on a one-on-one basis. At the conference I presented a poster of my current research. Going to the Native American pow wow was a great experience. It was good to be able to experience a celebrate their culture and traditions with all of the other conference attendees. I would encourage others to go to the SACNAS. The conference not only had seminars for undergraduate students, but they had an equivalent number of seminars for graduate students and post-docs.





Ellie Stephens

As the first NIH training grant at Virginia Tech, PREP posed several challenges administratively and in implementation. No one has been more instrumental in helping both PREP and IMSD navigate these challenges than Mrs. Ellie Stephens.

Ellie Stephens has worked at VT for more than 42 years and has been instrumental in helping coordinate PREP & IMSD from the beginning.

"You were there with Drs. Smith and Moore when the initial PREP proposal started, do you remember that?"

Yes, I remember putting in many hours with the project and subsequent issues in getting the funding sorted.

From the beginning, you were the 'go to' person affiliated with PREP, what would you say was the most challenging?

As graduate coordinator, because the students were out in the various departments and not in immediate contact to me, it was a challenge sometimes to help with their problems related to their graduate program.

What would be your advice to our current and future PREP and IMSD scholars about Grad School? About Virginia Tech?

Knowledge is empowering in all walks of life. Never miss an opportunity to learn something—no matter what the subject matter. Virginia Tech has grown immensely during my 42+ years of service and I can only imagine bigger and better things to come as VT strives to stay a top university.

PREP EVALUATION CORNER

WRITTEN BY G. ADI KUSUMA

PREP and IMSD are R25s, the equivalents of R01s for research. The NIH requires that each R25 include a "clear and succinct description of whether the program is achieving its goals." Starting with this issue, we are including the "Evaluation Corner." You are welcome to send our evaluators comments, but remember their job is to make us more competitive for renewal.

Doing program assessment and evaluation is significantly important in the development and eventually the improvement of a program. This process is a collaborative process in which the evaluators work closely with other stakeholders in the program to produce the expected results. Furthermore, it is essential that the evaluator works not only within the program but tries to compare different assessment programs. As such, the comparison would draw a contrast with other

programs' assessment with an intent that the comparison will yield a particular result.

During ABRCMS, we attended a session on assessment of students' preparation program under the Meyerhoff Adaptation Project (MAP). The MAP program is funded by the Meyerhoff foundation, and currently applied to three universities, the University of Maryland Baltimore County (UMBC), Penn State University and the University of North Carolina, Chapel Hill.

The MAP program has some similarities to the VT-PREP & IMSD programs, such as its emphasis on community, cohort, and mentorship. The program assessment for the MAP also has some similarities to the one at VT-PREP & IMSD, such as the use of multiple assessment methods with multiple point outcome bases.

The challenge of conducting an assessment for the VT-PREP & IMSD programs is how to improve and develop these programs not only to benefit the students, faculty advisors and the university but also to satisfy the requirements of the NIH as the grant funder.

There are several areas of strength that the VT-PREP & IMSD possess, which include a strong element of community. In addition, the programs also provide the students with strong mentorship, advising and guidance to help them grow professionally, and make sure that they succeed either in applying to graduate schools or in their professional careers.

However, like in any other programs, there are some elements in the VT-PREP & IMSD programs that could be improved. One of the most important things to improve is how to make the forums, one of the

key activities in both programs, invite more students to participate. Continuous low forum participation will decrease the students' involvement in the "developmental and experiential activities," an important part of the program.

Both programs seem to be on the right track to fulfill the program goals and requirements. Most importantly, the evidence suggests that the programs are not only impacting the students (both post baccalaureate level for VT-PREP and undergraduate and graduates for IMSD) but are also effective in increasing diversity at the institutional level, especially for training minority students in biomedical and behavioral sciences.

OTHER NEWS

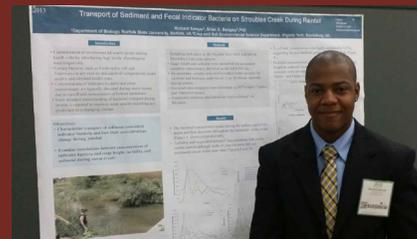
ABRCMS 2014

Annual Biomedical Research Conference for Minority Students

PREP & IMSD Scholars attend the 2014 Annual Biomedical Research Conference for Minority Students in San Antonio, TX



PREP Scholars in front of the Alamo

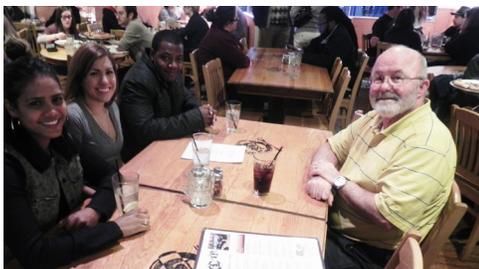


PREP Scholar, Richard Sawyer, at his poster session, ABRCMS



Nina Lauharatanahirun with Nobel Laureate Roger Myerson

Dinner & Dessert



PREP & IMSD Scholars having dinner with Dr. Mike Ellerbrock

With the support of a small grant from the College of Agriculture and Life Sciences (CALs) Diversity Council, we initiated a "Dinner and Dessert with PREP/IMSD Scholars" involving CALs faculty and staff not affiliated with PREP/IMSD family. The first two Dinner & Desserts were with Dr. Carlyle Brewster (Dept. of Entomology) and Dr. Mike Ellerbrock (Dept of Agricultural and Applied Economics). We are looking forward to continuing these dinners to give our scholars additional networking opportunities and our faculty an increased awareness of the most successful training programs on campus.

Meetings Attended By Our Scholars

Alise DeBruce, a current VT-IMSD Scholar, attended the **New Conceptions in the Study of Parenting-At-Risk Conference** in San Diego, CA. Alise noted that "I had the opportunity to discuss my ideas and hear what other scholars in the field think about parenting and where the field is going in the coming years."

Nina Lauharatanahirun (pictured left), a current VT-IMSD Scholar, attended the **64th Lindau Nobel Laureate Meeting** held in Lindau, Germany. 37 Nobel Laureates met with 600 young scientists to share their knowledge and discuss relevant topics. The young scientist who attended represented 80 countries and had to undergo a competitive selection process to be invited.

VT-PREP Alums **Simone Campbell** and **Brittany Rice**, with current PREP scholar, **Adewole Oyalowo**, attended the **2014 Society for Neurosciences Annual Meeting**. This conference had over 30,000 participants.

October 22-25th, **Jamelle Simmons**, current IMSD scholar, attended the **Biomedical Engineering Science (BMES 2014)** meeting in San Antonio, TX. Jamelle presented a poster under the Biomaterials section of the conference discussing the development and characterization of a new polysaccharide-based conduit tube for peripheral nerve regeneration.

October 23-25, **Chimera Lyle**, current IMSD scholar, attended the **Society for Leukocyte Biology and International Endotoxin and Innate Immunity Society** annual meeting held in Salt Lake City, Utah. At the conference, she was able to familiarize herself with the cutting edge research being conducted in her field, while networking with both researchers and graduate students who shared her passion for leukocytes.

ALUMNI NEWS

Dr. Yared Kidane (IMSD '07-09) completed his Ph.D. with Dr. Murali, the current research mentor for IMSD undergrad, Sarah Sam. After graduation, he is involved in important research at NASA. Our own Mr. Leemar Thorpe found this exciting YouTube video of Dr. Kidane: <https://www.youtube.com/watch?v=c2aNzjcVOBE>

Dr. Mark Duncan (PREP '09-10) completed his Ph.D. in Biomedical Engineering at Northwestern. His PREP year was spent in Dr. Aaron Goldstein's lab.

Hiwot Woldesemayat (PREP '10-11), received her Master's from San Francisco State University. Her PREP year was spent in Dr. Liwu Li's lab.

Dr. Mariam Konate (PREP '06-07), received her Ph.D. from Columbia University. Her PREP year was spent in Dr. David Bevan's lab.

Brittany Rice (PREP '13-14), received an award for Oral Presentation at the Virginia Academy of Science for her research completed in Dr. Elizabeth Gilbert's lab. Brittany is currently pursuing her Master's at Eastern Kentucky University.

Dr. Sheena Hosford (PREP '05-06) received her Ph.D. from Michigan State University in Human Development. Her PREP year was spent in Dr. Julie Dunsmore's lab.