A Message from the Program Directors

The spring is normally our “March Madness”: on-campus interviews for new candidates, our scholars interviewing at other institutions, and preparing for graduations. At our peak, we had 9 candidates here, all from very diverse backgrounds. Other major events included the defense of Dr. Jordan Booker, a leader in the PREP/IMSD family, who contributed so much of his time and always attended forums, even in disciplines far from his own. Dr. Anjolii Diaz, former IMSD scholar and co-creator of the regional group MAPRS, accepted a position at Ball State as an Assistant Professor. Speaking of MAPRS, the 2015 regional gathering has been organized by NC State through the efforts of regional partners Drs. Erin Banks and Felisha Jenkins. The Hokies crew will be represented by a strong contingent including our alumni Drs. Mariam Konate, Shernta Lee, and Albert Kwansa. It is time for competitive renewal discussions again for both IMSD and PREP. A stakeholders meeting will be organized in June/July to discuss the nature of the next version of both programs. Congratulations to all and have a very happy and safe summer!

- Program Directors: Ed Smith, Eric Wong, David Bevan, Project Associate: Leemar Thorpe, Ombudsman: Anne McNabb

Suggested Reading: We think you may find these interesting

Elizabeth Warren: A Fighting Chance
She counsels that since “minorities and women are rarely insiders, they should not be bothered by the advantages insiders have but take solace in not having ‘drank the insiders’ cool-aid’, freeing them to be creative and speak their minds.”

Opting Out, By Dr. Maya Beasley
(Recommended by a friend of IMSD and a member of the selection committee, Ms Michelle Waters, Ph.D. Candidate, Biomedical Engineering)
In her book Opting Out, Dr. Maya Beasley examines the question of why African Americans tend to “opt out” and enter fields with lower-pay and lower-status (e.g. social sciences and humanities), although many of them have the qualifications to pursue prosperous careers in higher-paying (e.g. STEM) fields.

Save the Date

The 3rd Annual Mid-Atlantic PREP/IMSD Research Symposium (MAPRS), hosted by North Carolina State University, will be held May 20–21, 2015. You can find more information here.
The Annual Biomedical Research Conference for Minority Students (ABRCMS) will be held November 11–14, 2015 at the Washington State Convention Center in Seattle. You can find more information here.
The Society for Advancement of Chicano and Native Americans in Science (SACNAS) will be held October 29–31, 2015. You can find more information here.
Orientation for the 13th PREP and 8th IMSD cohorts begins this year in early August.


IMSD / PREP 2014 Holiday Celebrations with University Distinguished Professor and Renowned Poet Nikki Giovanni

It was a thrill to have Virginia tech’s own, UDP Nikki Giovanni, as special guest and keynote speaker at the 2014 holiday celebrations. Her engaging comments to the PREP/IMSD family ranged from the history and culture of African-Americans, the shaping of American culture, to the relationship between Art and Science. “Artists dream and imagine,” she said, “while scientists (like the PREP/IMSD family) are able to bring those dreams into focus, and ultimately, reality!”

As part of our efforts to help scholars develop leadership and networking skills, Ms. Ariel Leon organized this holiday event and provided the following comments: “Hosting such a distinguished person for our gathering was definitely daunting. Introducing Dr. Nikki Giovanni was a challenge because I didn’t know which of her very many and notable achievements. Hosting her turned out to be a great experience. In the end it was very much worth the effort to celebrate the holidays and our IMSD family.”

IN THIS ISSUE

Hanging Out With Some Of Our Repeat Mentors ……2
Reflections By Our Alums………………………………3–4
Awards and Meetings………………………………………5
Our Scholars Feedback from The Interview Circuit……6
Alumni & Friends News……………………………………7
Evaluation Corner…………………………………………8
Faculty involvement in URM training is often voluntary, and it’s difficult for them to receive credit for it, since trainees receive neither degrees nor certificates. So, in this edition of VT PRIME, we briefly profile our faculty who have mentored three or more scholars from either PREP, IMSD, or both. All three continue to attract a lot of attention from our applicants, suggesting that in addition to being great mentors, their research is hot! We asked these outstanding Hokie scientists to “reflect on their research and education programs.”

I was a first-generation college student and I am the only one in my family with a PhD, so I know the challenges one can encounter when trying to undertake a research career when his/her family members do not understand what it means and can, at times, even manifest hostility against such choice. I think that my experience allows me to be a good mentor to URMs.

I am not sure why I am so often chosen as a mentor by URMs, but perhaps my transparent and simple attitude. It is possible that my straightforward and unpretentious way of interacting with the students during the interview makes them feel comfortable (I would be curious to know what my mentees would answer to this question!).

Each student is different, therefore a mentor CANNOT have one mentoring style. Rather, a good mentor should be able to adapt their mentoring style to the needs of individual students. This would be my piece of advice to anyone who wishes to be a mentor.

I see work-force diversity in scientific inquiry as a necessity to excite novel ideas, to chart roads less traveled, and to translate basic knowledge into unique practice. To this regard, recruiting URM students is very important.

We have a highly supportive and diverse environment that is a great draw for the students. Our experience and genuine care for the past students may also be a factor.

A genuine interest in the well being of the student would go a long way. The mentor should not let the research interest get ahead of the innate talent of individual trainee. I would prefer the encouragement and empowerment of the trainee, according to his/her potential and interest.
We asked a few alumni who have completed postdoctoral training, to “reflect on their scientific journeys” to date. Those are presented here in their own words and with some minor edits for space.

**Elaine Nsoesie, Ph.D.**  
**Assistant Professor, IHME, University of Washington (IMSD alumnus, 3rd Cohort)**

As an IMSD scholar, Dr. Elaine Nsoesie worked in our interdisciplinary program, GBCB and in Dr. Madhav Marathe’s group. She went on to do a joint postdoc at Harvard and VT and recently received NIH's prestigious transition K08 Research Grant, in Big Data, our first alum so honored. Dr. Nsoesie recently accepted a position at the University of Washington in their Public Health program. She previously “hung out” with the IMSD-PREP family when she was a guest speaker at the MAPRS-UNC in 2014.

*Responses Provided by Dr. Nsoesie*

IMSD provided both a supportive community and an engaging environment to learn skills useful for completing graduate school.

I always looked forward to the lunches! Maya Angelou was one of the speakers at an ABRCMS conference we attended during my time at IMSD. It was amazing and inspiring to hear her speak.

Take advantage of all that IMSD has to offer. Attending conferences or giving presentations during IMSD/PREP meetings is not always fun, but you learn.

**Karen Sutton, Ph.D.**  
**Lead Specialist Health Equity Research and Policy (PREP alumnus, 2nd Cohort)**

Dr. Karen Sutton was one of the first non-experimental scholars who pursued her GenomePREP (funded by the NHGRI) and her Ph.D. in Genome ethics with Dr. Doris Zallen. She was also the first to receive the NIH’s prestigious F31 (Ruth Kirschstein Fellowship) at VT. Dr. Sutton followed her exemplary PhD work with a postdoc at the UNC-Chapel Hill’s Center for Genomics and Society. She is currently a Lead Research Specialist at the Association of the American Medical Colleges. Among her recent honors as a keynote speaker at a Medical Symposium at Shaw University.

*Responses Provided by Dr. Sutton*

When I started PREP, I was transitioning from an undergraduate background in Chemistry and Mathematics to a Science, Technology and Society program. All of my previous experiences were in the lab, with very little work in the social sciences. However, I was intrigued by the work of my soon-to-be mentor Dr. Doris Zallen. I was particularly amazed by how she was able to merge the study of genetics and social and behavioral sciences. After engaging in one year of research with Dr. Zallen as my PREP mentor, I wanted to continue further along the path of understanding the ethical, legal, and social implications of genetics research.

Aside from the research experience, the PREP program provided me with valuable tools that I have used throughout my career. Tools such as, time management and networking skills, public speaking, and invaluable opportunities to be mentored by top-tier researchers. Though I am still on the journey, to achieving some of my life-long goals, the PREP program prepared me to be a more competent and skilled researcher and for that I am forever grateful.

I wouldn’t say that there was any truly difficult aspect of the program. Of course, there were the growing pains of being enrolled in graduate program, and taking graduate level courses, but those pains eased by the excellent mentorship by both my research mentor and Dr. Smith. The most rewarding part of the program was being accepted into my PhD program. PREP allowed me to narrow my research focus, so when it was time to begin my PhD program, I had a plan for accomplishing my research goals.

One of the things Dr. Smith said during one of our first PREP seminars, is that we are family. At first, I thought he was exaggerating just a tad, but in fact he was correct. Though many of the former PREP students in my cohort have embarked upon different careers, it is good to know that they are always a phone call away.

Seize each opportunity you can while in the program and allow yourself to learn as much as possible from your mentor. Your journey towards your Ph.D. isn’t going to be easy, so take it one step at a time. Head up, with your eyes on the prize, feet on the ground—keep moving forward!

**Chevon Thorpe, Ph.D.**  
**Assistant Professor, Cellular and Molecular Physiology, Edward Via College of Osteopathic Medicine (PREP alumnus, 4th Cohort)**

Dr. Chevon Thorpe received her BS from Christopher Newport University and then pursued a PREP and subsequently was one of only two scholars to follow a PREP traineeship with an IMSD traineeship at VT. Her excellent PREP tenure earned her the very rare double as it relates to NIH training grants at VT. In addition to her excellent growth in biomedical science, Dr. Thorpe is also a role model for how to juggle a young family while pursuing your PhD and of course “work life balance” in the sciences.

*Responses Provided by Dr. Thorpe*

Being a participant in the program helped me gain research experience, get a preview of graduate school life, interact with successful scientists, and most importantly set attainable goals for my future. After I had a clear vision of where I wanted to go in life, PREP supported me by providing both academic and professional guidance.

One of the most difficult aspects of the program was being able to adapt quickly to the fast pace of juggling graduate courses and a research program. I remember feeling very overwhelmed by my daily task list of course work, ongoing experiments, GRE prep, and graduate school applications due. However, these challenges have helped me become more efficient at time management and...
Brandy Huderson, Ph.D.
Assistant Professor, Biology,
University of District of Columbia
(PREP alumnus, 3rd Cohort)

Dr. Brandy Huderson is one of the all-time most admired scholars in the IMSD-PREP family for her genuine kindness and embodying the “family spirit” of the training programs. Dr. Huderson joined us from Xavier University as a PREP scholar in Dr. Mike Akers lab, with whom she also pursued her PhD in Mammalian Physiology working with dairy cows. As a PREP scholar and Program Assistant for one semester, her apartment and later her house was the joint for many fun PREP socials, and often the start attraction being her dogs.

Responses Provided by Dr. Huderson

Both PREP and my research advisor, Dr. Akers, gave me a chance to prove myself and show that I was ready and able to handle the rigors of a research graduate program. Right now I am a first year Assistant Professor of Biology starting up my research lab!

I’d say the hardest part of the program was balancing the requirements of PREP with the requirements of my department. The best part was being able to serve as a mentor to incoming scholars; realizing that you had gained some knowledge and experience that was worth passing on.

One of the most memorable moments was the care and help that was shown to me and mother after Katrina in 2005. One month after I arrived, Hurricane Katrina destroyed my home town and my mother was forced to temporarily relocate to Blacksburg with me. As soon as Dr. Smith found out, he set about finding her something to do. Within a week of arriving my mother had been assigned to report to Beeks Elementary to volunteer as a teacher’s aide. Dr. Smith really went above and beyond to make sure that both my mother and I were taken care of during this horrible time in our lives.

IMSD isn’t a free gift. You have to work hard and fulfill all your obligations. This means attending meetings and forums though they might interfere with your schedule and maintenance of a high GPA. This can be difficult, especially if you are taking four classes, working on your thesis, and helping others in the lab. However, I think that’s when a lot of the guest speakers’ words and advice were the most influential. I learned to manage my time better and overcome rough semesters with the support of IMSD.

I remember a lot from IMSD, but one memory that stood out was going to SACNAS with Dr. Becky Ortiz de Quiles. We both thought that Utah was a warm place—boy were we wrong! We both packed our best attire to represent Utah was a warm place—boy were we wrong! We both packed our best attire to represent LSU PRIME SPRING 2015.

Anjolii Diaz, Ph.D.
Assistant Professor, Psychological Science,
Ball State University
(IMSD alumnus, 1st Cohort)

Dr. Anjoli Diaz is from one of our most successful cohorts. Her many accomplishments during her time in IMSD include several national research presentations and co-founding the regional partnership, MAPRS and organizing the first symposium in 2013. She pursued her postdoc at the University of Arizona through the support of a supplemental grant of which she was in part a CoPD. She recently accepted an Assistant professorship at Ball State University.

Responses Provided by Dr. Diaz

IMSD provided me with an incredible support system to which I could turn if I ever had questions, problems or just needed to decompress with wonderful friends. I consider myself to be very fortunate to have had IMSD as a scaffold throughout my graduate career, giving me that extra reinforcement necessary to propel me to that next step.

First and foremost, take advantage of what IMSD has to offer! I won’t lie, graduate school is hard. It’s a lot of work, and you have to be committed and endure some sleepless nights. But you can do it. IMSD can help you through it. Don’t be afraid to talk to Drs. Smith, McNabb or Wong if you’re feeling overwhelmed. Not only do you have the opportunity to speak openly about concerns with the program, your lab, or just grad school with them, you also have a group of fellow peers in the same situation on which to lean.
**MEETINGS**

Alise Debruce (IMSD Scholar 7th Cohort), Bryce Riley (IMSD Scholar 7th Cohort), and Jordan Booker (IMSD scholars, 4th Cohort) attended the Society for Research in Child Development biennial meeting on March 19th in Philadelphia, Pennsylvania. While there, Alise presented research during a poster session, titled *Positive affect as a protective factor for maternal sensitivity in mothers who report stressful parent-child interactions.* Bryce and Jordan are pictured on the left.

Current PREP scholar Johanel Caceres (PREP scholar, 12th Cohort) and former PREP scholar Kevin Hughes (PREP Scholar, 11th Cohort), pictured right, attended the 2015 NEST at Bar Harbor New England.

Chelsee Holloway (PREP scholar, 12th Cohort) attended the 2015 Plant and Animal Genome Conference, hosted in San Diego, California.

Leland Fleming (PREP scholar, 12th Cohort) presented a poster at the Central Virginia Chapter of the Society for Neuroscience.

Bryce Riley (IMSD scholar, 7th Cohort) presented a poster at the Society for Personality and Social Psychology Conference, held in Boston, Massachusetts. Bryce’s poster was titled, *Are you seeing what I’m seeing? School and home factors tied to discrepancies in behavior reports for children with Oppositional Defiant Disorder*.

**AWARDS & RECOGNITION**

Ariel Leon (IMSD scholar, cohort 7) won the VT Sigma Xi Outstanding PhD Research Award. The award consists of $1,000 to be used in consultation with my mentor to further her research efforts.

David Vasquez (IMSD undergrad scholar) received the Travel Award at the 29th Annual National Conference on Undergraduate Research, sponsored by the Council on Undergraduate Research (CUR). David also placed second in Oral Presentation at the VA-NC Alliance for Minority Participation Conference. Additionally, David’s first authored paper can be downloaded [here](#).

Benjamin Okyere (IMSD scholar, 7th Cohort) participated in the 31st annual Graduate Research Symposium held in the Graduate Life Center, at Virginia Tech on Wednesday, March 25th. The award was for the “silver poster presentation” at the Symposium. Ben (pictured on the left) with Dean Depauw and other poster presentation winners at the Graduate Research Symposium.

Armand Meza (IMSD undergrad scholar) was selected to present research at the 2015 ACC Meeting of the Minds conference.

Nina Lauharatanahirun, Ph.D. Candidate, (IMSD 5th Cohort) and PhD student in Psychology was recently featured in the VT News for designing a “social media site that matches young minds with scientific mentors.”


**PH.D. DISSERTATION DEFENSES**

Dr. Jordan Booker (IMSD scholar, 4th Cohort) successfully defended his dissertation, supervised by Dr. Julie Dunsmore, entitled “Effects of emotion- and gratitude-focused expressive writings on incoming college students’ adjustment”. Jordan (pictured on the left) with his parents, celebrate his successful defense seminar. Link of Jordans profile in a recent VT News - [http://www.vtnews.vt.edu/articles/2015/05/051415-dsa-jordanbooker.html](http://www.vtnews.vt.edu/articles/2015/05/051415-dsa-jordanbooker.html)

Dr. Gade Kimsawatde (PREP scholar, 5th Cohort) successfully defended her dissertation on Wednesday March 18th 2015. The title of her dissertation, supervised by Dr. Nammalwar Sriranganathan, is, “Determination of Minimal Bactericidal Concentrations of Anti-Infectoves against Intracellular Mycobacterium avium subsp. paratuberculosis: Development of a Cell Culture Model.”

**MEETINGS**
Successful PREP scholars and the seniors in IMSD engage in the ritual of interviewing at one or more schools to help determine the “right program” for their PhD. Their experiences provide us and future scholars a guide that could help PREP and IMSD be more effective. We asked the scholars to comment on these experiences:

**OUR SCHOLARS FEEDBACK FROM THE INTERVIEW CIRCUIT**

Chelsee Holloway  
**Current PREP Scholar**  
Mentor: Dr. Rebecca Cockrum  
Department: Dairy Science

Not only was I able to meet one-on-one with professors with different research backgrounds, I was also able to make connections with fellow interviewees who were from schools across the country and were in other research fields.

One of the things I liked most about the interviews was that I got to travel to places I have never been before. For example I interviewed at the University of Wisconsin Madison, I had never been before so it was a great opportunity to visit.

Interviews at some schools I visited had a very competitive nature about it, especially if they had a large number of students at once interviewing. But other schools had very laid back interview process where it was more of a chance to see if you fit the school and if the school thought you were as good a student in person as they think you are on paper.

Albert Hinman  
**Current IMSD Scholar**  
Mentor: Dr. Daniela Cimini  
Department: Biological Science

Three factors definitely helped out during the interviews: being unique, having a friendly disposition, and demonstrating that you can think critically about research topics. Meeting the other interviewees and interaction with graduate students were the best part of my interviews, there were amazing people at every institution I visited.

One memorable moment took place during an interview at the University of Chicago. As I sat down in the interviewer’s office, he asked if I wanted a cup of coffee. Not wanting to be rude, I accepted the offer. The professor gave me a tiny porcelain cup, and I soldiered through the interview drinking the most bitter coffee I had ever tasted. It paid off with an acceptance, but I still wonder if my taste buds’ sacrifice was worth it.

Overall, I’d say that the preparation that I did on my own, as well as through the mock interviews with the PREP faculty, really paid off. I ended up receiving offers of admission from each institution that I interviewed with. Needless to say, I was very pleased with the overall result.

Leland Fleming  
**Current PREP Scholar**  
Mentor: Dr. Greg Valdez  
Department: Biological Science

Overall, I was very grateful for the opportunity to visit new places and meet a lot of really cool people.

One of the schools that I interviewed with was located in South Florida and, at the time, the weather was in the mid-to-upper 70s. It was really great to be able to enjoy the warmer climate during a time when it was around 20 degrees here in Virginia!

The interviews I enjoyed most were the ones that gave me the opportunity to speak with professors in whose labs I could potentially work. There was one school where our interviews were solely with faculty on the admissions committee, and not necessarily individuals that with whom students could potentially be paired during graduate study. I was somewhat disappointed by this because, in my opinion, meeting with potential mentors is part of what really allows students to judge whether or not a school is a good fit. Overall, I was very grateful for the opportunity to visit new places and meet a lot of really cool people.
Dr. LaChelle Waller, Assistant Professor, VCU and former Peer Mentor in PREP/IMSD, was recently featured in Family Magazine.

Dr. Karey Sutton, Lead Research Specialist, AAMC, recently published an in-house work intended for distribution throughout medical schools and teaching hospitals. You can download the full report and review the infographics [https://www.aamc.org/download/419276/data/dec2014communityhealth.pdf].

Kevin Hughes, Ph.D. Candidate, Yale University, (PREP 11th Cohort), was awarded the prestigious NSF Graduate Fellowship and received honorable mention for the Ford Foundation Graduate Fellowship. Following several months of lab rotations, he joined Dr. Sandra Wolin’s lab and the Cell Biology Department, where he is characterizing a RNA quality control system in S. typhimurium.

Leah Guthrie, Ph.D. Candidate, Albert Einstein, (PREP 10th Cohort) has been busy. She was a co-author along with others from Drs. Ann Stevens’ and Jenkins labs on a paper in PLOS One. She chose a lab following rotations, passed her qualifying exam last December, and is now focusing primarily on lab work.

Erica Lee, NC State, Ph.D. Candidate, (IMSD prebac), received an honorable mention for the Ford Foundation Fellowship. She is currently thinking about applying for an F31 before December.

Perhaps our most decorated scholar, having won numerous awards in the interdisciplinary Genetics Bioinformatics and Computational Biology Program, Dr. Shernita Lee (Postdoctoral Research Associate, UNC IRACDA scholar, IMSD 3rd Cohort) continues her exemplary citizenship leading a STEM Summer Workshop for students in grades 7 through 10. The workshop was recently featured in the Roanoke Times (participants sought).

Natalia Gonzalez, Ph.D. Candidate, University of Chicago (PREP 7th Cohort) attended the Mammalian Genome conference in October and more recently the prestigious Gordon Conference on Quantitative Genetics and Genomics in Lucca, Italy (https://www.grc.org/programs.aspx?id=12072).

SPEAKER SPOTLIGHT:
DR. LUANNA PREVOST

We were excited to host Dr. Luanna Prevost, our guest speaker for the PREP and IMSD forum in April. Currently an assistant professor in the department of integrative biology, Dr. Prevost studies include the analysis of student writing and problem solving in biology.

As an undergraduate in Dr. Smith’s Comparative Genomics Lab at Tuskegee University, she contributed to the development of some of the first genomic reagents for the chicken and turkey that resulted, as she put it, “in her first scientific publication.”
The 12th PREP Cohort is near the end of its tenure and the 7th IMSD cohort will end its first year. Many of the activities that both programs employ to develop the scholars are undergoing “summative evaluation” for the academic year. As part of our assessment, we are also conducting “exit interviews” with the PREP and IMSD undergrad (pre-bac) scholars to determine the challenges/opportunities as well as identify those that require little tweaking. The feeling of a “sense of community” that most students/scholars feel continues to be the top positive. This sense of community is exemplified in various activities, such as the biweekly forum, self-organized peer lunches or dinners, or the mentorship process among students/scholars. During these activities, these students/scholars not only talk about their scientific experience, they also discuss the challenges they face as a member of the underrepresented minorities in science. This sense of community not only helps them understand the challenges of being a scientist, but also, most importantly, provide them with the support needed to persevere and excel as a scientist.

Evaluator:  Dr. Steve Culver, Assistant Provost for Assessment and Evaluation  
Graduate Evaluator Assistant:  G. Adi Kusuma, Ph.D. Candidate, Public Admin and Policy