

VT PRIME

QUARTERLY NEWSLETTER

VT PREP & IMSD EXTRA: NEWS FROM THE PREP/IMSD FAMILY

A Message from the Program Directors

Welcome to another edition of *VT PRIME*. Our IMSD/PREP family continued this past quarter to march toward the end of the school year with exhilaration. We welcomed Drs. Fantasy Lozada and Mycal Smith, IMSD alumni from NC State, to VT. We wish them both luck as they make decisions about their “next life.” We hope it will be with the Hokie Nation where we are excited about their potential and what they bring to VT. We are also excited about the upcoming MAPRS at VCU because of the opportunity to meet and network with our colleagues and new trainees. Initial rounds of interviews for our next cohorts for both IMSD and PREP are underway. We encourage our current trainees to participate in these processes as we identify the newest members of our community.

Program Directors: Ed Smith, Eric Wong, David Bevan, Zac Mackey, Luke Achenie

Project Associates: Leemar Thorpe, Catherine Einstein, Ombudsman: Anne McNabb, Mrs. Habsatou Konate

Mrs. Konate is a new member of our leadership team and will be responsible for program coordination.

Suggested Readings and Podcasts:

Thrive: The Third Metric to Redefining Success and Creating a Life of Well-Being, Wisdom, and Wonder, Arianna Huffington

She commends us to remember that:

“Eulogies are always about the other stuff: what we gave, how we connected, how much we meant to our family and friends, small kindnesses, lifelong passions, and the things that made us laugh.”

Soul Food, Sex, and Space, Nikki Giovanni

Professor Nikki Giovanni was on the [On Being](#) podcast to encourage “young people to pursue science and combine that pursuit with the humanities.”

Save the Date:

IMSD/PREP/Carver Forums: March 31 and every other Thursdays at 12:00-1:15PM in 1810 Litton-Reaves Hall.

End of Academic Year Celebration: May 13, [Dr. Kiarri Kershaw](#), Assistant Professor, Northwestern University, and friend of IMSD/PREP, will be our Keynote Speaker.

VT Graduation: May 13-14, 5 IMSD Undergraduates and 2 PhD recipients.

MAPRS VCU: May 25-26, 2016. Contact Drs. Joyce Lloyd and Sarah Golding [HERE](#) for more information.

Meet Our New Provost and Executive Vice President, Dr. Thanassis Rikakis



In the next issue of *VT PRIME*, we will feature an exclusive interview with Provost Rikakis regarding his vision about diversity at Virginia Tech. Understandably, the Provost has been busy helping VT with two major initiatives “Beyond Boundaries” and “[Destination Areas](#).” In his brief commentary at the 2016 Diversity Workshop, Dr. Rikakis expressed his desire to bring innovative ideas to VT’s new initiatives in Inclusion and Diversity. We are looking forward to hearing his ideas in the next issue. Here, we provide a profile of the Provost based on a VT press release and other publicly available information; original articles are

located [HERE](#) and [HERE](#).

Dr. Thanassis Rikakis has been Virginia Tech’s executive vice president and provost since August 16. He is also a tenured professor in the Department of Biomedical Engineering and Mechanics and holds a joint appointment as a music professor in the School of Performing Arts.

During the time of his hiring, President Timothy D. Sands stated that “[Dr. Rikakis’s] interdisciplinary and collaborative approach to teaching and research, and his passion to couple emerging technologies with the performing arts and humanities resonated deeply with those whom he met throughout the interview process.” Around the same time, Dr. Rikakis said that “Virginia Tech’s foundation of interdisciplinary graduate and undergraduate education, experiential learning, and partnerships among faculty, community and industry around broad research themes, sets the stage for meaningful future change.”

Dr. Rikakis has said that the trajectory of VT has risen over the years thanks to great leadership, leading to stability within the university. He hopes to maintain this rise and stability while becoming acclimated to his role as provost, although he admitted there is a learning curve to “having to relate to areas that are way outside your area of comfort.

He also feels strongly about the customization of the educational experience. Since everyone has different backgrounds, abilities, and aspirations, there is no one-size-fits-all education. He stated, “You have to figure out how we can help students find out exactly who they are, find out exactly how to learn in a way that makes sense for each one of them, but at the same time guaranteeing... that they are really getting a very useful education that will be useful to them throughout their lives.”

IN THIS ISSUE:

Provost Thanassis Rikakis, Profile.....	1
Dr. Roger Avery, Profile.....	2
Spotlight on IMSD Trainee	2
Graduating IMSD Undergrads.....	3
Spotlight on PREP Trainee.....	3
Spotlight on Careers in Industry.....	4
MAPRS 2016.....	4
Dr. Margo Holland’s Visit to VT.....	5
Alumni and Current Trainee News.....	6
Evaluation Corner.....	6

NEXT ISSUE:

Provost Rikakis, Interview
 Outgoing IMSD prebac seniors and PREP scholars, Profiles
 New staff and program directors, Profiles

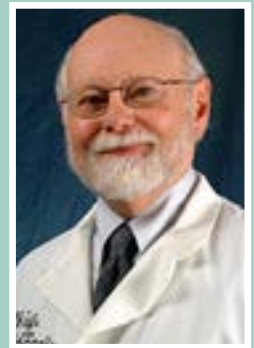
Dr. Roger Avery: Sr. Associate Dean of Research & Graduate Studies Retires

Dr. Roger Avery, Senior Associate Dean in the Virginia Maryland College of Veterinary Medicine, a wonderful friend of the IMSD/PREP family and who has served in many roles in the training programs, is retiring. We are going to miss his quiet leadership and humor. Virginia Tech continues to make inroads into the health and biomedical sciences with major planned and new initiatives central to the Provost's Destination Areas. The Vet School is expected to be a major contributor to our growths thanks in very large part to the foundation provided by Dr. Avery. He was also there as the associate dean of the graduate school at the beginning of the R25s when PREP was proposed as a training grant in 2003. His vision and unwavering support for PREP helped us become what we are today. He carried that vision to the Veterinary School where he helped VT obtain our first T32 and later a T36. His efforts to diversify biomedical research at the Vet School led us to partner in the training of PREP alumni, including Drs. Alicia Feagins (Meng lab) and Gade Kimsadwadte (Nathan lab). We are going to miss his calm disposition and keen insight into how to mentor diverse trainees. Below, we provide a profile of Dr. Avery based on a VT press article, original article can be found [HERE](#).

During Dr. Avery's time here, he has been responsible for managing, nurturing, and expanding the college's research and graduate programs as well as teaching as a professor of virology. He has been an administrator at Virginia Tech since 1999, first as Senior Associate Dean in the Graduate School then, in 2005, he became Senior Associate Dean of Research and Graduate Studies in the Virginia-Maryland Regional College of Veterinary Medicine.

He has benefited the students greatly in his time in office. He has aided in securing funding and developing programs such as the Biomedical and Veterinary Sciences Graduate Student Association and the Research Symposium. He has remodeled the college's DVM/PhD program to improve drop-out rates.

He has also advocated and fundraised for better facilities for multiple departments within the college, including the Infectious Disease Unit. He contributed to the design and planning of the Integrated Life Sciences Building in the Corporate Research Center and the \$10.2 million dollar Infectious Disease Research Facility. He even created a gnotobiotic swine research facility to be able to meet the needs of a new faculty member.



Spotlight on IMSD Trainee

This is a new feature of our newsletter to help alumni and friends of the VT IMSD/PREP family get to know more about our current IMSD (26) and PREP (7) trainees.



Dexter Austin is an undergraduate senior majoring in mechanical engineering and will be staying in the mechanical engineering department to do graduate work. Although he is in the mechanical engineering department, the research he is a part of is related to the medical issue known as Neonatal Abstinence Syndrome (NAS). His research team's focus is on infants suffering from withdrawal symptoms as a result of in utero exposure to opioids. Overall, they hope to develop technology that can be used to objectively quantify a variety of the infants' symptoms, which can be used to improve their treatment.

Dexter enjoys participating in engineering research. He has been able to apply many lessons learned in classes and has developed new skills that are not extensively covered in the classroom. In addition to learning more about the sensors and programs he's worked with, the importance of planning, usefulness of communication, and the iterative nature of the design process have been impressed upon him. On a more personal level, he has faced the challenge of developing the level of independence required to lead a research project, making that transition has been an avenue of personal development and growth for him.

A prominent lesson Dexter has learned during his time as an IMSD undergrad is the importance of communicating topics in a clear and generalized manner when presenting to an audience. Since he may be talking to those unfamiliar with the methods or instruments he uses, he has modified many of his presentations to clearly explain the topics and information used.

Graduating IMSD Undergraduates



Armand Meza is a neuroscience and psychology double major. As an undergraduate, the immune system and its relation to the brain was the most fascinating thing he learned. His next step is to enter a PhD program for neuroscience and gain a research position after that. Armand believes that the research experience he has received through IMSD has helped him create a strong application for graduate school. He would recommend any first-year students who want to continue onto graduate school to begin gaining experience now.



Sarah Sam is a neuroscience and biological sciences double major. She has been most excited to learn about the brain and how it is studied. After graduation, she will be entering a PhD program in neuroscience and hopes to still be in a lab in the years to come. Sarah would like to advise the first year students to start building a resume early, though it is never too late to have a change of mind. Additionally, she would stress that cherishing friendships and experiences in college is equally as important as preparing for the next step. An important part in preparing

for the next step, especially if the next step is grad school, is to gain research experience. Sarah not only learned how to think like a scientist through research experience but also learned how important it is to think of herself as a scientist.



Kimberly Soto is a biology major. The most exciting thing she learned as an undergraduate is to never miss an opportunity to meet someone new; you can never know what may become of it. After graduation, Kimberly will take a year off before continuing her education in the research branch of biology. Ten years from now she hopes to still be working in cancer biology. She would advise first years to not underestimate themselves and never be afraid to try new things. This will open the doors to many great opportunities and give them confidence to succeed. The research

experience Kimberly has gained through IMSD has allowed her to truly understand how research works and learn many things that will help her in her future career. Her time at Cimini lab specifically has taught her what the foundations of research really are, how to create a personal way of thinking, and how to find solutions to her problems on her own. Her experience has also taught her the importance of collaboration as well as independence.



Alexandra Teodor is biochemistry major. Probably the most exciting things she has learned during her undergraduate career are just how diverse science actually is and the impact that interdisciplinary work has on creative, interesting science. Starting this fall, Alexandra will be pursuing a PhD in Genome Science and Technology in a joint program between the University of Tennessee

and Oak Ridge National Laboratory. In ten years, she hopes to be starting a tenure-track position at a research university and have her own lab as a principal investigator. Some advice she would give to first year students would be to try and identify some faculty that you feel like you relate to in some way. Networking is key to gaining opportunities later. Alexandra's undergraduate research experience has also proven invaluable to her. She was able to find out that she wants to pursue scientific research as a career and got exposure to a lot of different areas of science. She is very grateful to those who have helped her during her along, such as Dr. Glenda Gillaspay, Dr. Ed Smith, and her lab mentors Dr. Pheobe Williams, Jiun Yen, and Janet Donahue. They have shaped her research experiences as an undergraduate and really inspired her to continue with graduate school and work towards a research career.

Spotlight on PREP Trainee



Shakarr Wiggins is looking forward to studying neuroscience as a graduate student. She received her undergraduate degree in biology from Wesleyan College, a small school of approximately 500 students. She just completed graduate school interviews and is excited to attend Weill Cornell Medical College for graduate school. She has a strong academic background but had limited experience in research before coming to Virginia Tech.

Transitioning from a small school to Tech has been great for Shakarr. She was immediately surprised by the enormous amount of school spirit during football season. The number of research possibilities available for undergraduate students also amazed her. One immediate negative about attending such a large school for her is the always-crowded library.

She has been enjoying working on her research project so far. She is working with her lab to establish a new animal model for blast traumatic brain injuries. She is using immunohistological techniques to identify injury biomarkers within the brain and is studying how the level of these injury biomarkers change with time and injury severity. Analyzing the brain tissue will also aid in identifying pharmacological targets to help design effective treatments for those suffering from blast induced neurotrauma.

Spotlight on Biomedical Research Careers in Industry

Virginia Tech is a BEST (Broadening Experiences in Scientific Training) institution with significant efforts across disciplines, including our belief that the PhD is a foundation for pursuing many diverse careers. In this issue, we describe Dr. Tamisha Vaughan's experiences in industry. This alum has remained engaged and very committed to the IMSD/PREP family. Like Dr. Vaughan, our trainees Drs. Rebecca Ortiz Marty (Beckman Coulter) and Roberto Padilla (KBI Biopharma) are also pursuing careers in industry, demonstrating the fact that the biomedical and behavioral sciences PhD is a hub to diverse careers. We hope to relay Dr. Marty's and Dr. Padilla's experiences in the future as an example for our current and future trainees about diverse career paths.

1. Where do you currently work? What is it like?

I currently work for a Japanese pharmaceutical company called Kyowa Hakko Kirin California, Inc. My role is in the External Innovation Group where I serve as a Scientific Scout responsible for identifying and establishing external partnerships with academic universities to enhance our drug pipeline.

2. Tell us about what you do (responsibilities, challenges, successes, etc.).

Primary responsibilities include establishing relationships with the academic and non-profit communities. In addition, I identify and evaluate external opportunities for collaboration and in-licensing in areas of oncology, nephrology, central nervous system, and immunology. One of the main challenges is delivering rejections to potential partners. Successes, of course, are identifying opportunities that would indeed advance the drug pipeline.

3. What are some things you did not expect before you started working?

I didn't expect there to be such a high demand for pharmaceutical companies to work with academic groups.

4. What do you miss most about Blacksburg?

Things I miss most about Blacksburg include Kabuki Japanese Steakhouse, celebrations with my lab-mates, Hokie football, and tailgating.

5. What advice would you give to other trainees about to start work in the industry?

It is a completely different world from our academic training. I would emphasize the importance to be open-minded, willing to take constructive criticism, and trying to learn something new every day.

6. What do you want your career to look like in ten years?

In ten years, I would like to be Director of Innovation for a major pharmaceutical company.



MAPRS 2016

This year MAPRS will be held on May 25th-26th at Virginia Commonwealth University in Richmond Virginia. The keynote speaker will be Dr. Suzanne Barbour, Dean of the University of Georgia Graduate School. We will also get the privilege of hearing from Dr. Jerry Strauss, Dean of the VCU School of Medicine; Bryan Wilson, PhD/MBA candidate from Wake Forest University; and Elaine Nsoesie, Professor of Global Health from the Institute for Health Metrics and Evaluation, University of Washington. The two-day symposium will include a talk on the NIH's perspective on diversity training, a recruitment fair, a career development session, and other networking events.

Register to attend MAPRS 2016 [HERE](#) before April 25th.

See more information about MAPRS agenda [HERE](#).

Dr. Holland's Visit to Virginia Tech

From March 23-25, 2016, the IMSD/PREP/Carver Family hosted [Dr. Margo Holland](#), National Program Leader, US Department of Agriculture. Among the busy schedule, Dr. Holland networked with our trainees and reflected on her awesome career path, which has included private practice, academia as a tenured professor, and currently the Federal government as a Research Administrator. Her visit was primarily coordinated by Carver Scholar, Ms. Shavonn Whiten (PhD student in Medical Entomology). Her wonderful efforts leading the hosting of Dr. Holland, one of the few African American women in a senior leadership position in Research Administration, is consistent with a fundamental value and commitment of Virginia Tech: "Dedicated to its motto, Ut Prosim (That I May Serve), Virginia Tech takes a hands-on, engaging approach to education, preparing scholars to be leaders in their fields and communities."



Top left: Calvin Waldron, Lauren White, Aurielle Lowery, Chris Caver, and other Carver scholars fellowship with Dr. Holland over networking dinner.

Bottom left: Robert Bass, Russell Umstead, and other Carver scholars fellowship with Dr. Holland over networking dinner.

Top right: Dr. Holland during her "reflections" on her career path and "journey in science." She provided her tips for the three primary career obstacles:

FAIL: consider failure as "First Attempt In Learning"

END: Efforts Never Die

NO: Next opportunity

All these to help you not consider FAILure as an END or NO you can't do this or that.

Bottom right: Drs. Margo Holland and Randy Grayson (Founder/Director, George Washington Carver Graduate Student Assistantship Program) pose with Carver Fellows after a networking dinner.

Alumni and Current Trainee News

Dr. Muna Suliman, PREP alum from our 4th Cohort, PhD VCU and Postdoc at Georgetown University, started at Astrazeneca as a research scientist.

Ms. Ayana Stukes, IMSD undergrad (Capelluto lab), Wake Forest PREP and MBA, accepted a position at Dell as Graduate Coordinator.

David Vasquez, IMSD undergrad alum (Hawley lab) and PREP scholar at Mizzou, accepted an offer to start his PhD at UGA in the fall.

Hariyat Andargachew, PREP alum, started at [BioScience Communications](#), a pharmaceutical company, as Editorial Account Executive and strategic partnerships chair.

Ms. Davia Blake, current PREP trainee at Mayo (Capelluto lab), accepted an offer to start her PhD at the University of Pennsylvania in the fall.

Simone Campbell, PREP alum from our 11th Cohort (Belden lab) accepted an offer to start her PhD at Emory's neuroscience program in the fall.

Successfully completed/passed preliminary examinations:

Alexis Trent, IMSD 6th Cohort (Van Dyke lab), Materials Science Engineering.

Ariel Leon, IMSD 7th Cohort (Hawley lab), Biological Sciences.

Ashley Peralta, IMSD 7th Cohort (Santos lab), Chemistry.

PREP trainees in our current (13th Cohort) are matriculating to awesome institutions in the Fall, which will be included in our Summer edition.

Completed degrees:

Dr. Leah Banks, PREP 4th Cohort (Sible lab), successfully defended her PhD at Meharry University.

Dr. Ramine Alexander, PREP 9th Cohort, successfully defended her PhD and will be attending UNC for her postdoc.

Received awards:

Tristan Hayes, IMSD 4th Cohort (Lawrence lab), participated in INRO at the NIH/NIAID.

Alyssa Debra, IMSD undergrad, was recently selected as one of 6 VT undergraduates to present at the 2016 ACC Meeting of the Minds Conference, Syracuse, NY, as seen [HERE](#).

We were saddened to learn of the untimely passing of the mother of PREP alum and recent Keynoter, Dr. Brandy Huderson. Many of you may recall that after Hurricane Katrina she spent several weeks with Dr. Huderson and the PREP family.

Evaluation Corner

Ms. Jyosatna Sharma is our new IMSD/PREP Evaluation Graduate Assistant. She will work with Dr. Culver to work on the independent and anonymous evaluations that have guided us the last 14 years, even though NIH is moving to a more outcomes-based assessment. We urge everyone to participate in these evaluations.

VISIT US ON THE WEB



[APSC](#) | [VT PREP](#) | [VT IMSD](#)