

# ODASIS NEWSLETTER

Vol. 15



Gina Beshai—UPitt School of Dental Medicine



Roger Robles—NJMS



Chielozor Okafor—UPenn Perelman School of Medicine



Sashelle Vasquez—NJCU Nursing

## Office for Diversity and Academic Success in the Sciences (ODASIS)

### Upcoming Events

#### ODASIS Open House

Saturday, April 4, 2020

#### 2020 ODASIS Graduation and Awards Ceremony

Thursday, April 30, 2020

RUTGERS  
School of Arts and Sciences

## *Thanks to all program donors!*

ODASIS would like to thank all alumni for their generosity and contributions and would like to highlight those that donated during 2018-2019:

- Dr. Alisha Akinsete
- Dr. Camille Archer
- Dr. Didier Demesmin
- Dr. Donyell Doram
- Ms. Adjii Fatou Drame
- Dr. Evelyn Escobar
- Dr. Foluso Fakorede
- Dr. Talya Fleming
- Dr. Camille Green
- Ms. Annette Hale
- Dr. Roland Hamilton
- Ms. Jasmine Harris
- Dr. Andrew Harrison
- Mr. Joseph Magdaleno
- Dr. Pamela Marks
- Dr. Tiffany Martinez
- Ms. Sandra McKinley
- Mr. Bruce McLeod
- Dr. Ijeoma Njoku
- Dr. Ramon Nunez
- Dr. Osamudiamen Obanor
- Dr. Lynn O'Connor
- Dr. Ewere Osian-Dugan
- Dr. Herbert Pardes
- Dr. Schubert Perotte
- Dr. Elsa Pichardo
- Dr. Angelique Ridore
- Dr. Laury Rosefort
- Dr. Michael Ruzek
- Dr. Corey Smith
- Ms. Daryl Von Herbert
- Dr. Brianna Wapples
- Dr. Datrell Ward



Foluso Fakorede, M.D.

## **Bidding Farewell to Another Group of Incredible Future Physicians**



At the end of April, ODASIS celebrated the class of 2019 with the 33rd Annual ODASIS Graduation and Awards Ceremony. After some moving introductory remarks from Dr. Alister Martin, our alumni speaker whom we would hear from later in the evening, the program began. The evening was attended by the best Rutgers has to offer, with welcoming remarks from Dr. Lori Covey, Dean of Life Sciences, and inspirational and celebratory words from both Dr. Karen Stubaus, the Vice President for Academic Affairs and Administration, and Rutgers–New Brunswick Chancellor Christopher Molloy. To motivate the students, Dr. Wanda Blanchett, the Interim Provost and Executive Vice Chancellor for Academic Affairs, shared the moving tale of her academic journey. Graduating at age 25, Dr. Blanchett worked multiple jobs through her academic career saving thousands of dollars a year to pay for her tuition. The demand of these jobs had a massive impact on her GPA, and after being suspended for her grades, she was given the ultimatum of raising it or leaving the school. What this meant in her specific circumstance was that she could only afford to receive a single B that year—a tall order even without the extra responsibilities she had. However, she persisted and succeeded in the face of this challenge and now stands at one of the highest levels of administration at the very school which tested her resolve to succeed. Her inspirational story was followed by the astounding story of Dr. Alister Martin. The hardships he went through and the way in which a door opened up when he thought all was lost is a story none of the students are sure to forget soon. The ODASIS Outstanding Achievement Award was presented to Ms. Mercedes Rivero, Rutgers-NJMS Assistant Dean of Admissions. With the presentation of certificates and graduation stoles, the ceremony came to a close with remarks from Mr. Nestor Diaz and Ms. Olga Castaneda, the parents of Antonio Alvarez, a 2019 ODASIS graduate and future graduate of Rutgers–New Jersey Medical School. With wide smiles and some teary eyes, the evening came to a close with the realization that these students' journey with ODASIS, at least at the undergraduate level, had come to a close. With the graduation of this class of healthcare professionals, we look forward to our goal of a more diverse healthcare field. Congratulations to the class of 2019, and we wish you nothing but success in the future!



# Cultivating Student Success

## Sparking Motivation That'll Last 8 Years...And Beyond!

The annual ODASIS Motivational Workshop held on November 30, 2018 was an incredible success. Attended by over 50 professional schools in medicine (osteopathic and allopathic), pharmacy, nursing, dentistry, physician assistant, physical therapy, and more, the event garnered the turnout of over 400 ODASIS undergraduates. After a stirring opening by our own Dr. Khan, Dr. Daniel Mehan from Robert Wood Johnson Medical School served as a motivational faculty speaker, using his time to stress the importance of programs such as ODASIS and his own office at RWJMS. Michael Goeller, the Associate Director of the Rutgers Writing Program, followed by highlighting the importance of revision and planning while urging our students to collaborate and enjoy writing. Dr. Ron Michaelis was also honored with an ODASIS Distinguished Professor award in recognition of his support of our students over the years. ODASIS students were just as integral to our event as faculty, providing some of the most impactful and memorable anecdotes of the evening. ODASIS alumnus and current NJMS student Ayodeji Folarin was praised by students and faculty guests alike for his eloquence, and undergraduate student Alonso Caceda imparted wisdom on how students should adapt to overcome academic challenges. The evening ended with a proud ODASIS staff recognizing our incredible new Access Med Phase I class of over 80 students. We are confident the drive and passion we saw in our students eyes that day will continue to burn bright over the challenging years to come.



## Success As Far As the Eyes Can See



On Friday, February 15, 2019, the ODASIS office hosted its annual High Achiever's Workshop where we recognized 54 students who have maintained both a 3.2 term GPA and at least a 3.2 BCPM. We were fortunate to have faculty and staff representing the Biological Sciences Department, Chemistry Department, SAS EOF, SAS Honors

Program, and the SAS Scholarship Office. Our guest speaker, Dr. Matt Winkler, holds numerous accolades and is the current Assistant Dean for Advisement at the Rutgers Graduate School of Education at Rutgers. During his time speaking he urged our students to invest in themselves and look at future value, referencing an old Ferrari that during its time cost nearly 3 times the average cost of a home, but when sold in an auction last year, went for over \$35 million. This is the perfect analogy for the long path and extensive "costs" of medicine and the future immense reward of pursuing a career in medicine. After he took a moment to acknowledge all of our guests and thank the ODASIS team, our panel of alumni guest speakers was introduced: Kwame Awuku, NJMS graduate, Irene Martinez, NJMS 1st year student, Michelle Martins, NJMS early decision student, and two members of Access Med Phase II—Carolayn Munoz and Hesbon Isaboke. Each shared priceless tidbits of advice that brought them to where they are now. Afterwards, Dr. Anne Carr Schmid, Director of Advising in the Division of Life Sciences, was honored for her invaluable contributions to ODASIS. Our program concluded with a touching speech by Dr. Janice Cato Varlack from Rutgers-RWJMS, in which she detailed her personal struggles through her academic and personal careers. She challenged every student to believe that they could accomplish anything they desired to, igniting a fire that is sure to last over the course of their journey in medicine.

# Alumni Highlights

## Uncle Jon: *A Family Affair*

Known affectionately as Uncle Jon, Jonathan Langowski has established himself as a presence in ODASIS that cannot be replaced. What began as a chance meeting with Dr. Khan at Werblin Recreation Center almost 15 years ago and the offer of a project coordinator job, has now become the prestigious Associate Director position at the ODASIS program. This title comes with an immense load of responsibilities, yet Jon has always gone above and beyond in the projects he has undertaken. After seeing how ODASIS General Biology students were consistently outperforming our General Chemistry students, Jon theorized that a summer institute with support in chemistry might be the solution. After running the idea past Dr. Khan and advocating for support from the Vice President of Students Affairs and external organizations, the first class of 20 in what would become the Chemistry STP summer bridge program was born. Even more incredibly, 15 of the 20 students in that first class would go on to become physicians. Jon refused to become complacent with this initial success; instead, he worked to secure generous donations from large

pharmaceutical companies and more recently the University itself. Through his efforts, we now can support up to 40 students—double the number with which we started. This incredible story is just one of the many successes Jon has brought to our program.

When asked about his favorite memory with ODASIS, Jon says he can't really narrow it down to one. Every Access Med ODASIS Graduation dinner is his favorite because he can see how much joy and validation it brings. Every year he's amazed to see the students he once taught practicing as physicians, and this amazement can be traced to one core fact about Jon—the best part of working for ODASIS for him will always be the students. In his own words, it's "engaging and challenging these young minds that makes it all worthwhile."

As always, we at ODASIS thank Jon for not only for the incredible work he has done during his career, but also for the genuine care and compassion with which he has taken care of every student that walks through the door of Nelson A201. As Dr. Khan says, ODASIS will forever be your home.

## Four Years Later: Catching Up With Pardes Scholarship Award Winner Dr. Ruben Salazar

The Herbert Pardes MD RC'56 Excellence Award (Pardes Excellence Award) is an award established in 2014 that provides financial support to outstanding rising pre-med seniors striving to enter the medical profession. Six awards have been made to date and the current awardee Chielozor Okafor will be attending the University of Pennsylvania medical school next year. Ruben Salazar, one of the first recipients of the award, is currently finishing his fourth year at UPenn Perelman School of Medicine on a full scholarship. Since having received the award, Ruben has completed four years of medical school and matched at New York Presbyterian Hospital Columbia University Medical Center for a residency in Internal Medicine—one of the most competitive and prestigious residency programs in the country.

Ruben majored in Cell Biology and Neuroscience during his time at Rutgers and credits ODASIS with where he is right now. In his own words, "from being tutored to becoming a tutor, ODASIS was there every step of the way...without ODASIS I simple would not be where I am now". Ruben credits the Pardes scholarship with giving him the ability to apply to medical school considering how costly the process can be.

Beyond the financial support the award supplies however, Ruben also recognizes how much his relationship with Dr. Pardes has influenced his medical career. "I think he's a huge part of why I'm currently doing my next phase of training at Columbia", he claims humbly. Though he believes such, we at ODASIS think it was not only the guidance of Dr. Pardes but the dedication Ruben had to his childhood dream of becoming a cardiologist that has brought him so far. His genuine love for the humanity of medicine is apparent when he admits that the best part of medical school, and the greatest privilege, is learning how to take care of others and give them strength in their most raw and vulnerable moments. When asked for his words of advice for our current students, Ruben encourages each and every one to keep grinding and requests they reach out for help whenever they need it. "Reaching out does not make you weak or dumb, it makes you resourceful," he says. "The program can seem like too much at times and cumbersome however, it has helped so many before you become doctors. It sure helped me". Congratulations Ruben on behalf of the entire ODASIS staff and we look forward to your future success!

## Academic Year 2018-2019 Grade Comparisons

### General Biology

	ODASIS	vs.	Rutgers
≥B	50.44%		43.63%
	ODASIS	vs.	Rutgers
≥C	81.07%		76.07%

### General Chemistry

	ODASIS	vs.	Rutgers
≥B	49.85%		35.78%
	ODASIS	vs.	Rutgers
≥C	88.76%		71.25%

### Mathematics

	ODASIS	vs.	Rutgers
≥B	46.97%		20.17%
	ODASIS	vs.	Rutgers
≥C	71.55%		49.50%

### Biochemistry

	ODASIS	vs.	Rutgers
≥B	91.22%		65.92%
	ODASIS	vs.	Rutgers
≥C	93.55%		93.81%

### Organic Chemistry

	ODASIS	vs.	Rutgers
≥B	52.07%		39.76%
	ODASIS	vs.	Rutgers
≥C	88.45%		77.34%

### Genetics

	ODASIS	vs.	Rutgers
≥B	70.15%		57.83%
	ODASIS	vs.	Rutgers
≥C	92.48%		82.02%

### Physics

	ODASIS	vs.	Rutgers
≥B	81.05%		57.57%
	ODASIS	vs.	Rutgers
≥C	96.77%		88.42%

### Systems Physiology

	ODASIS	vs.	Rutgers
≥B	72.45%		51.92%
	ODASIS	vs.	Rutgers
≥C	90.12%		73.91%

## From High School Expulsion to Harvard M.D.: How Tennis, Lobsters, and a Little Luck Changed one Man's Life Forever

In his own words, he was in the wrong place, with the wrong people, at the wrong time. For a teenage Alister Martin, what began as a fun night out with some friends would end with the abrupt conclusion of a Neptune High School student's career. Only later would he realize that this supposed end was just the beginning of a long journey on a road he didn't even realize existed.

Growing up in Neptune, there were plenty of things Alister learned. Street smarts and grit were a given, but more importantly Alister learned that young people from Neptune didn't grow up to become doctors. But it wasn't that people from Neptune didn't want to become doctors. For a young Alister whose mother, his only guardian, was diagnosed with cancer and then miraculously cured eleven months later by her doctor, medicine seemed like magic. And like every child who was mesmerized by magic, Alister wanted to grow up to become a magician: a doctor. However, all eleven year olds grow up, and in the same way we come to realize that magic isn't real, a young Alister learned that attending college was similarly unrealistic.

One evening during his last year of high school, Alister and his close friends decided to go to a high school party. They'd planned on driving there together and would be giving someone from their class a ride. However, they arrived to a scene they weren't expecting. That unknown classmate was involved with a blood gang from a different town and 12 of its members were waiting for the car of 4 to arrive. Both Alister's ribs were broken, his friend's jaw was broken, and his other friend ended up through the windshield of the car. But their physical injuries were far from the worst of their worries. Neptune High School had a zero tolerance policy for gang related incidents, and despite the pleas and explanations, Alister was expelled from school just months before he would receive his high school degree. His mother tried to get him to other schools in the county, explaining his circumstance and arguing his case however, with the gang activity on his record compounded with his subpar grades at what was considered the worst high school in the county, he had nowhere to go.

It was being backed into this corner that probably pushed Alister's mother to take the biggest risk of her life. Taking out a loan for tens of thousands of dollars, she sent Alister to a tennis sports academy that had been attended by the greats (Serena and Venus Williams to name a few). Having been a tennis club janitor in the 8th grade, and then playing throughout high school, Alister was no stranger to the sport. However, he would soon come to realize that his previous training was not nearly enough. Placed originally in a youth girls division, he worked every day honing his skills until the ray of hope he needed appeared: he was scouted by the Rutgers University tennis coach. Coach Bob helped him get his GED and the following fall Alister arrived at the home of the Scarlet Knights.



*Alister Martin, M.D., M.P.P.*

Though his circumstances made it seem impossible, Alister had never forgotten his dream of becoming a doctor, and he would find himself at the ODASIS door step early on in his Rutgers career. Over his four years he would learn how to study, make lifelong friends, throw a foam party, and gift Dr. Khan a live lobster on the day of his ODASIS graduation ceremony. Without the guidance and friendship he received at ODASIS, Alister claims he would not be where he is today: chief resident at the Massachusetts General Hospital's Emergency Medicine Residency with both a medical degree from Harvard Medical School and Masters in Public Policy from the Harvard Kennedy School. He has become the man he needed to see as a young boy growing up in Neptune, and ODASIS has produced many of these role models for similar communities around the country. According to Alister, each ODASIS student settles in a new area, and in the process creates spheres of influence, which can incite change on the national level. It is towards this national change that Alister is constantly moving, and for which we at ODASIS have worked so hard over the years. And it is for this national change that we are sure Alister will keep striving, years and years down the line.



# In Their Words—Charting a Path to Success

## Adora Moneme



When I look back at my college experience, the things that first come to mind are buying Wings Over Rutgers while staying up to study during the Merck summer program, living in the same hallway as seven other ODASIS women who would grow to be my closest college friends, and finally gazing at the ODASIS wall of students in Nelson my senior year, seeing week after week as more of my friends achieved their goal of one day attending medical school.

These memories show just how integral ODASIS was through my four years at Rutgers. It was a place where I would find encouragement, advising, and constructive feedback. My advisors took time to help me map out every college year, creating the structure I needed to succeed. I was on the Rutgers women's soccer team and juggling academics and athletics was one of my toughest challenges. However, every time I walked in Nelson I knew that there were people there, whether it be my advisors or my peers, that would be willing to help ease the load, give advice, or help me focus on studying for my classes.

My biggest advice to those that are considering whether to join ODASIS, or those in it already, is to trust the process. College is daunting, but with the right support you will succeed. ODASIS provides all the resources and the networks that you will need. Simply grab on and make the most of it.

As I start this next phase of my life, I look at the start of medical school similarly to how I saw the start of college: I am nervous about adjusting to the pace and responsibilities. However, this time around I am confident in the foundation ODASIS has built. Therefore, I want to say thank you to the entire ODASIS community, including the staff, my peers, and the alumni. Thank you for providing the love and the support, and for paving the way.

## Antonio Alvarez



Before I even sat for my first lecture at Rutgers, I was a part of ODASIS through the MERCK summer program. The lessons taught that summer went beyond classroom material and coming out of the program, I felt that I could handle being a real college student. However, once the semester started my grades didn't reflect that. Plainly, I didn't manage my time well or take advantage of the resources at ODASIS. You need to do more than just go to lecture and ODASIS sessions to be prepared and once I realized this in the summer following my freshman year, a clear change occurred on my transcript and in my attitude. I now know that the best way to learn and overcome challenges is to ask for help and fully utilize all the resources you can get.

ODASIS became a place that I could go to with a problem and confidently walk out with a solution. This allowed me time to have meaningful and valuable experiences like shadowing alumni physicians and volunteering at the local high school and also boosted my confidence in my academics.

When the MCAT became my next academic challenge, I had the opportunity to prepare for it through the year-long ODASIS MCAT class. Hours upon hours of intense study taught me the discipline that I will need at the next level and through the vast amount of practice and support the class and my advisors gave me, I performed exceedingly well and even went on to teach this same course to my underclassmen.

Even in the final stretch of my undergraduate journey, ODASIS remained one of my greatest sources of support. They allowed me to build relationships with medical school faculty and discover where I wanted to become a physician. I am grateful for the investment of ODASIS in me and excited to start medical school. Here's to continuing the ODASIS tradition!

# Rutgers Diversity Program Helps EOF Student on Path to Career in Medicine

*With help from the ODASIS and Access Med programs, Hesbon Isaboke is the first in his family to graduate college*



Hesbon Isaboke, the son of Kenyan farmers, became the first member of his family to graduate college in May and is working toward a career in medicine, a goal that seemed unimaginable growing up.

Isaboke was 11 when his family emigrated to the United States. His mother, who passed away from cancer shortly after he entered his junior year of high school, wanted him to get an education to open up new opportunities.

"I knew my parents would have to work on lower-end jobs to begin this life but my goal was to study hard in school, succeed, and eventually, upgrade my family to a dream life in this new country of opportunity," Isaboke said. "Back in Kenya, my father had begun teaching so it was mostly up to my mother to tend on the farm and I never wanted her to do such kind of labor to provide for her family again."

A Rutgers-led program that supports students from underrepresented groups who wish to study medicine helped him find his way as a first-generation student.

He was driven by his mother's desire that he succeed.

"When she was on her death bed I could see a woman who had

worked so hard in her life to provide for her sons. She did what she had to do and she gave it her all. I want to make her proud even though she is gone," Isaboke said.

Now, after graduating with a biological sciences degree from Rutgers University–New Brunswick's School of Arts and Sciences, Isaboke will attend Rutgers Robert Wood Johnson Medical School. He credits the help he received from the SAS's Office for Diversity and Academic Success in the Sciences (ODASIS) and its Access Med program with helping him realize his academic potential.

He started working with the program at the beginning of his time at Rutgers when he met Kamal Khan, ODASIS director, at new student orientation.

"Dr. Khan became a mentor for me. I didn't know which classes to take or which resources to utilize, or how to get involved with networking opportunities, and he helped me with all of this and showed me my dreams were possible," Isaboke said.

He met developmental specialists through ODASIS who helped him make a four-year academic plan that focused on which classes to take to make sure he met all his academic requirements.

ODASIS works to increase the recruitment and academic success of underrepresented and disadvantaged students who are interested in STEM (science, technology, engineering and math) careers. Access Med, offered through a partnership between Rutgers University, Rutgers Robert Wood Johnson Medical School and Seton Hall University, serves as a pipeline to medical school by providing undergraduate students with academic enrichment, support and advising undergraduates.

"Hesbon is one of the most dedicated students in ODASIS. He is very understanding of others needs and shows great promise as a future doctor," Khan said. "He is like the Pied Piper in that his peers listen to him and follow his lead. I am honored to help him reach his goal of becoming a doctor."

Isaboke said he wants to set an example for his cousins and his siblings, to help them see that no dream is impossible.

"I want them to know we can all do it, and our disadvantages don't have to work against us," he said.

*“Dr. Khan became a mentor for me. I didn't know which classes to take or which resources to utilize, or how to get involved with networking opportunities, and he helped me with all of this and showed me my dreams were possible.”*

*—Hesbon Isaboke*



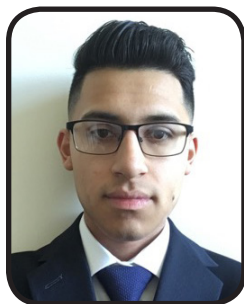
# Summer Research Programs



## Malek Maddah - Travelers Summer Research Fellowship Program, Weil Cornell Medicine

This summer I had the pleasure to participate in the 7-week TSR-F Program of Weil Cornell Medicine. This program is designed to give prospective medical school students insight into the field of medicine, including issues faced by traditionally underserved communities. Every week began with a Monday cardiovascular physiology lecture series followed by workshops that shed light on different aspects of medicine, such as financing for medical school as well as particular residency programs. For the rest of the week, I partook in basic science research under the supervision of Assistant Professor of Neuroscience, Dr. Wenjie Luo. Here, I explored the plausible impact protein CH25H may have in Alzheimer's pathology. More specifically, I worked on validating the creation of an iPSC-derived CH25H knockout human microglial cell line, a step that was essential in furthering the goal of the study. Though the study is currently ongoing, its results will be among the first to examine the mechanism by which CH25H acts in microglia's inflammatory response prevalent in AD and directly measure the impact modulating the levels of this protein may have on neurodegeneration/AD pathology.

In addition to providing me with the opportunity to participate in cutting-edge research as well as insightful workshops, the T-SRF gave me to the opportunity to shadow at New Presbyterian Hospital, the fifth-best hospital in the country. Particularly, I shadowed Emergency Medicine and Cardiology attendings. Observing the dynamic of a hospital as well as the lasting impact doctors would leave on patients, reinforced my passion for medicine immensely. Ultimately, I would be remiss if I did shed light on the hidden gem of this program-- my peers. Getting to know fellow minority pre-medical students from across the nation as we explored NYC was amazing and most definitely, an experience I wouldn't trade."



## Jorge Alonso Caceda - SPURS at Columbia University

This summer I had the opportunity to work in Dr. Virginia Cornish's lab on genetically engineering a fungal biosensor to detect a synthetic peptide derived from Ebola virus. Our method of genetic engineering involved a technique called Directed Evolution. This method involves mutating our gene of interest through error prone PCR and then performing a selection and screening process to see which of our mutants is binding our target with a significant degree of selectivity and sensitivity. During my time here I made tremendous growth as a student and scientist. It's one thing to master all material in a textbook and it's another to see how those experiments, concepts, and theories play out when trying to discover something new.



## Maxwell Emmanuel - Diversity Summer Internship Program - Johns Hopkins Medical Institute

This past summer I had the opportunity to participate in the Diversity Summer Internship Program offered by Johns Hopkins Bloomberg School of Public Health. In this program, students work under the direct mentoring of accomplished Johns Hopkins researchers and are provided with a graduate-level, independent research project in the biomedical or public health field. There is a wide array of fields in public health from wet lab research to community engagement. Johns Hopkins tries to cater to each student's individual interests in order to provide the best experience possible.

As a public health student who is on a pre-med track, I had the opportunity to intern under Dr. Tanjala S. Purnell at the Epidemiology Research Group in Organ Transplantation in the Johns Hopkins School of Medicine. My project focused on the development of a faith-based academic-community partnership to address disparities prevalent in minority communities in regards to access to kidney transplantation. In this formative research, we took a qualitative approach and conducted in-depth interviews of religious community leaders about what they felt were important components for the formation of this partnership. We specifically chose religious leaders because religious organizations are largely made up of members of the community and will, therefore, reflect the needs of the community. In addition to working on this project, I also had the opportunity to network with a number of faculty and students at Johns Hopkins Medical Institute.



## Nalah McBride - SHPEP at Rutgers-NJMS

This summer I had the opportunity to spend six weeks at the Rutgers New Jersey Medical School for the Summer Health Professions Education Program (SHPEP) in Newark. I participated in prep courses such as, Intro to Biochemistry, participated in cadaver labs, as well as some shadowing with dental students. One of the best parts about this summer was being able to have a one-on-one with the Dean of Dental Medicine at Rutgers about my academic standing. Dr. Chaviano was a pleasure to meet and inspired me to keep going. With her, I was able to practice a wax-up with special tools & also created impressions on a fake patient's mandible & maxilla. Those same impressions were transformed into a microstone model of the fake patient's mouth. This summer was also my first time working in a cadaver lab. I had the opportunity to expose the whole arm which allowed me to see the muscles, fat, & major nerves. Overall, the experience was worthwhile, and I am content with the connections I have made.

In addition to learning about the intricacies of dentistry, I had the opportunity to intern under Johnson & Johnson's Diversity & Inclusion Department for the second half of the summer. My job consisted of researching J&J and its peer companies in terms of social governance, diversity-driven action submissions & D&I content. My insights would inform workstreams of Diversity & Inclusion for the year so that ERG leaders within J&J can improve on specific areas. It was interesting to truly understand the metrics behind the term 'diversity & inclusion' and to then see how that translates into the healthcare field.



## Gloria Awuku - Sampath Lab at the New Jersey Institute for Food, Nutrition, and Health

This past summer I worked at the Sampath Lab in the New Jersey Institute for Food, Nutrition, and Health conducting research on the relationship between the DNA repair protein, OGG1, and obesity. The main goal of the lab is to delineate the mechanisms that lead to metabolic diseases such as obesity so as to identify pathways that can be targeted by pharmaceutical and nutritional therapies. My main task was to learn and perfect the Western Blotting technique which is a way of detecting proteins in tissue samples. The main steps of the technique are gel electrophoresis which allows us to separate proteins by size, then the proteins are transferred from the gel onto a membrane which will allow us to detect the proteins using an imaging machine. I worked closely with a graduate student who mentored me in the lab and taught me how to do Western Blotting to detect the presence of several different proteins of interest in our samples. What we found was that mice that were genetically engineered to over-express OGG1 are at a lower risk for developing obesity, diabetes, and other metabolic diseases. Future research is aimed at understanding what function of OGG1 decreases one's risk for obesity. I look forward to continuing my research studies in the lab this upcoming Fall 2019 semester.





### **Christopher Stephen - USC Keck School of Medicine**

This summer, I worked within Dr. Alicia McDonough's laboratory at USC's Keck School of Medicine. Here I conducted research about how we could use urinary exosomes as potential biomarkers for kidney related illnesses. Below is my abstract:

Chronic Kidney Disease (CKD) is the gradual decline of renal function to filter excess fluid and waste from our blood. Affecting nearly 37 million in the US and costing Medicare roughly \$49 billion annually to treat stages 2-4, early diagnostic measures would prove invaluable in delaying and/or preventing the burden on the United States' physical and economic health. Urinary exosomes, a class of extracellular vesicles released by cells, may possibly offer an accurate picture of kidney function. As exosomes are used in cell-cell communication, defense, and maintenance of the body's internal homeostasis, the contents of these vesicles can offer insight into the status of their origin tissues. By examining the concentration of proteins ratio-metrically between the kidney and the urinary exosomes, kidney specific exosomes can serve as biomarkers for kidney related illnesses. Exosomes may offer a window that can revolutionize the way we view and treat illnesses.



### **Azra Dees - Summer Premedical Academic Enrichment Program at University of Pittsburgh School of Medicine**

I participated in the second level of the University of Pittsburgh School of Medicine's Summer Premedical Academic Enrichment Program. I was assigned to work in Dr. Yiqin Du's lab in The University of Pittsburgh's Ophthalmology Department. Her research focuses on using stem cells as a possible treatment for primary open angle glaucoma. Within the eye, there is a region called the trabecular meshwork (TM), which is responsible for draining outflow from the eye and removing debris. It is located behind the cornea and near the ciliary bodies of the eye. In primary open angle glaucoma, the trabecular meshwork region gets damaged, which causes an increase in intraocular pressure (IOP). This increased pressure damages retinal ganglion cells and eventually bursts the optic nerve, leading to irreversible blindness. Previous studies have shown that TM stem cells can home to the TM region and lead to a regain in function. My project studied the effects of different stem cell injections in normal mice eyes on intraocular pressure, the stem cells' homing patterns, and the expression of TM cell markers in these stem cells. I learned cell culture techniques as I was growing the different stem cells, and when they were ready, the cells were labeled with dye and injected intracamerally into the trabecular meshwork region of the eye. IOP was measured consecutively for two weeks, and then cell marker expression and homing patterns were elucidated. When I was not in the lab, I was shadowing physicians, touring medical facilities, attending professionalism workshops, participating in scientific journal clubs, and taking quizzes on the lectures given to first year medical students. I learned a lot and enjoyed my experiences.



### **Anika Valery - Douglass Residential College, Project S.U.P.E.R. (Science for Undergraduates: A Program for Excellence in Research)**

This summer I worked in the Duffy Lab where I was granted the exposure to an experience that I am truly grateful for in an incredible lab where I have been educated and challenged on topic that I was only vaguely familiar with before. In this lab, I worked with two viruses phi6 and phiX174. Both of these viruses affect plants and humans. While conducting research I had the opportunity to explore the potential for lethal mutagenesis of single stranded DNA viruses as a method of viral treatment for the cash crops, livestock and people infected by various viruses. I grew cultures of bacteria and infected them with a bacteriophage and used my results to conduct statistical analysis of mutation rates of viruses in order to have a better understanding of how effective our mutagen is. I have gained valuable experience with lab technology and technique. I aspire to use what I will learn while conducting research to start asking my own questions and to start seeking a greater understanding of human epidemics and solutions to the negative effects that these processes can have on many people worldwide.

## **High School Programs**

The 2018-2019 junior cohort of Saturday Scholars started the year off with an average SAT composite score of 988 in September. In May, the students finished the year with an average of 1098 for their overall composite score. This is above the US average of 1060 and the district average of 944. In Fall 2018, 31 high school seniors took Rutgers college level Basic Composition course. 30 out of 31 students passed to earn three college credits. In Spring 2019, 28 students moved on to Expository Writing. It is with pleasure to say that all 28 passed earning another three college credits for a total of six college credits earned. 20 out of 31 senior students who participated in our program and graduated in class of 2019 will be attending Rutgers University in Fall 2019. These students will attend through New Brunswick, Newark and Camden.

## **Strategic Plan Summer Prep Program**

*A fully immersive summer prep course for bright minds and future healthcare leaders*

ODASIS proudly presents the five week Summer Prep Program. Participants are taught chemistry by Dr. Emmanuel Hove, who makes sure to captivate, challenge and push each scholar to their full potential. Alongside him stand our calculus instructors and writing teachers who embrace the power of diversity and carefully devote their time to listen and mentor students in the five weeks.

The nature of the program is to prepare our students for their first semester at Rutgers as well as begin establishing a community of high achieving scholars. The 40 accepted scholars are offered the chance to work with upper level science ODASIS scholars, whom join them throughout the summer as Academic mentors and chaperones. Through sharing personal experiences and their knowledge of test taking techniques and summer research opportunities, they emphasize on the goal of making sure that our students begin their Rutgers careers with stronger fundamentals.

STP finds the right balance of experience and fun, by adding medical school trips to universities such as Columbia Medical School and weekly workshops that demystify concepts such as study skill habits and test taking skills. Four years later, 13 STP participants from summer 2015 have already been accepted to medical and other professional schools, including UPenn Perelman School of Medicine, and many others are in the process of applying. 37 out of 40 participants in the 2019 STP cohort earned a final grade of B or higher in the program. Students are both prepared and begin their first semester of their college careers more confident, and better prepared; a distinguishable ODASIS science leader. The Rutgers University Strategic Plan and generous donations from Rutgers ODASIS alumni make this program possible, and we are immensely grateful for their support.

# Congratulations to the Class of 2019

## Graduating Seniors and Alumni\* accepted to Dental, Graduate Medical, Osteopathic, Physical Therapy, M.D./Ph.D., or B.A./M.D. Programs

### Allopathic Schools

#### RWJMS

Nathalie Adam  
Adedayo Adepoju  
Yadybel Ayala\*  
Oluwadamilola Ilesanmi  
Hesbon Isaboke (EOF)  
Karan Kalahasti  
Roger Martinez (EOF)  
Carolayn Munoz (EOF)  
Brenda Romero (EOF)  
Christopher Wachuku\*

#### Sidney Kimmel (Jefferson)

Jessoca Amoako  
Peace Nosa-Omorogiuwa\*  
Jideofor Okafor

#### NJMS

Antonio Alvarez  
Cesar Clarke\* (EOF)  
Ovie Enaohwo  
Nikhil Kethidi  
Hector Lisboa\*  
Daniel Marte\*  
Michelle Martins  
Brianna Mendiola  
Kevin Nolasco\* (EOF)  
Emefa Ocansey  
Jessenia Palacio\*  
Roger Robles  
Varun Uchil  
Jack Wright\*

#### Other Allopathic Schools

**Jacobs SOM (U. Buffalo)** -  
Matt Akbar  
**Meridian SOM (Seton Hall)** -  
Nicolas Balbi\*  
**Lewis Katz (Temple)** -  
Frank Ceden, Bryce Hill,  
Chase Jennings  
**U. Illinois MSTP** - Kyle Kremiller  
**Perelman SOM (Upenn)** -  
Adora Moneme, Chielozor Okafor  
**NY Medical College** -  
Kedar Trivedi  
**St. George's U. SOM** -  
Daniel Ulloa\*

### Osteopathic Schools

#### Rowan SOM

Ola Ogunnowo\*  
Justin Wong

#### PCOM

Dianne Mancheno  
Rachael Mfon  
Claudine Nwadiozor  
Joseph Romero\*

#### Touro COM

Elisa Marte\*

### Dental Schools

#### Rutgers School of Dental Medicine

David Casal  
Nelson De Lima  
Sara Ezzat  
Jasmine Lopez

#### U. Maryland Dental

Fady Basili\*  
Beshoy Malk  
Garett Tom

#### Other Dental Schools

**UPitt School of Dental Medicine** - Gina Beshai  
**Temple School of Dentistry** -  
Joshua Kim  
**NYU College of Dentistry** -  
Ummia Zaman

### Allied Health Professions

#### Rowan - Masters

Mariana Garcia  
Rahyan Mahmud\* (EOF)  
Lorena Olea\*

#### Rutgers - MBS

Gabriella Bahamondes  
Falak Hussain

#### Other Allied Prof. Schools

**U. Miami - Masters** -  
Sabrina Alexander  
**Rutgers - PA** - Towhid Ahmed\*

### Vet Schools

#### U. Penn Vet

Dayana Perez\*

## Breaking Barriers and Paving Paths: How ODASIS Alumni Light the Way for Future Generations

In highlighting the successes and acceptances of our newest class of graduates, we at ODASIS have not forgotten how the work of those before them has been integral to maintaining and growing our program. Only through their generous donations, not only monetarily but through donations of time and the imparting of knowledge, have we been able to expand our reach to where it is today. This year we've chosen to highlight a few special alumni, asking them to reminisce on their years with ODASIS and trying to get to the heart of why, decades after their time with us, they continue to support our program.

After visiting the hospital with his brother as a young boy, Dr. Schubert Perotte was intrigued by the life of a physician, but it was not until he volunteered in the Emergency Room at RWJUH as a Rutgers student that Dr. Perotte truly knew that he wanted to enter the healthcare field. A friend on campus first mentioned Dr. Khan to him, and after standing in the long line outside his door and having his first meeting, Dr. Perotte never left the ODASIS family.

For Dr. Guy Francis, this story shares many similarities. After breaking his jaw when he was younger, a career in medicine piqued his interest, but as he grew older the time commitment seemed daunting. It was his first year at Rutgers, just like Dr. Perotte, that changed everything. Ms. Lisboa, part of ODASIS at the time, guided him to the Student Medical and Dentistry Program, a summer program

that gave undergraduate students exposure to courses that would be taken in medical and dental school. This, coupled with realizing that he wouldn't want to regret not chasing after his passions, was what spurred Dr. Francis to join pursue a medical career and join ODASIS. In his own words, joining ODASIS helped him realized "you're not an island by yourself-you need support". And with us he found the support he needed- making friends with people going through the same things he was- and a family in the people of ODASIS.

It truly was a family; Dr. Perotte's ODASIS friends became roommates whose similar goals and desires to give back to their communities became motivation in what seemed like the worst of times. For him, getting into medical school was the highlight of his undergraduate years, yet it soon proved to be as difficult as the rumors claimed. Though he succeeded, an even greater challenge lay waiting: residency. In his own words, these formative years were the "biggest roadblock" he had to overcome in his professional career. He learned to understand the difference between constructive criticism and criticism that was meant to simply put him down, and gained the discipline and skills necessary to be an effective physician. He has become an effective physician to say the least-Dr. Perotte now serves as the Chairman of the Emergency Department in East Orange General Hospital. Dr. Francis is a now a well-loved family physician,



continued from previous page...

whose describes his job as “seeing the parents and children, and husbands and wives- it’s seeing generations of families”.

When asked why they have given so much to our program, both men reply with the same word: responsibility. When students shadow Dr. Francis, he knows that he’s helping cultivate the physical skills and amiable bedside manner these future physicians who will go on to utilize in their communities. I think Dr. Perotte sums his reasoning best: “The best resource we have is each other and we need to be the ones ensuring everyone has the resources they need to survive and thrive... These support systems (ODASIS) allow for an outlet, growth, and continued motivation where you don’t have to feel alone.”

As exemplars of individuals providing ODASIS students with the resources they need, we at ODASIS would also like to thank Dr. Ronniel Mercado and Dr. Nunez for providing funding for scholarships for our students. To our students they are role models, but also gracious benefactors whose acts have affected not only our students themselves but also their families and loved ones’ lives.

As such, we at ODASIS would like to thank all our alumni and donors for their continued kindness and support. Each of you have served an integral role in lighting the path towards future success, and so we wish you the utmost success in the future.

## Alumni Graduating in 2019

### Congratulations to our ODASIS Alumni Graduating in 2019 from Graduate, Doctoral, or Professional Programs

#### 1327 ODASIS GRADUATES FROM 1990-2019

Profession	Number (%)	Profession	Number (%)
Medicine (MD)	568 (42.9%)	Medicine / Public Health (MD / MPH)	4 (0.3%)
Osteopathy (DO)	110 (8.3%)	Chiropractic (DC)	4 (0.3%)
Biomedical Sciences (MBS)	53 (4.0%)	Biomedical Engineering (MBE)	3 (0.2%)
Dentistry (DMD / DDS)	40 (3.0%)	Law (JD)	3 (0.2%)
Biomedical Research	15 (1.1%)	Optometry (OD)	4 (0.3%)
Physician Assistant (PA)	13 (1.0%)	Medicine / Biomedical Sciences (MD / MBS)	3 (0.2%)
Podiatry (DPM)	15 (1.1%)	Research (PhD)	3 (0.2%)
Nursing (RN / BSN / LPN / MSN)	13 (1.0%)	Medicine / Business (MD / MBA)	1 (0.1%)
Medicine / Research (MD / PhD)	8 (0.6%)	Osteopathy / Law (DO / JD)	1 (0.1%)
Pharmacy (Pharm D)	18 (1.4%)	Master of Science (MS)	1 (0.1%)
Osteopathy / Biomedical Sciences (DO / MBS)	7 (0.5%)	Veterinary (DVM)	2 (0.1%)
Public Health (MPH)	6 (0.5%)	Other (e.g., business, education)	412 (31.0%)
Physical Therapy (PT)	20 (1.5%)		

#### Osteopathic Schools

##### Rowan SOM

Kimberly Agbo  
Mark Adrian Hulipas Bell  
Dorellie Owusu  
Kimyetta Robinson\*  
Luisa Rodriguez\*  
Gannat Shalan  
Diana Vargas  
John Zadroga

##### Other Osteopathic Schools

**PCOM** - Mabel Majekodunmi,  
Otito Osadebe  
**LECOM** - Karandeep Singh,  
Michael Valentim  
**Touro COM** - Fady Youssef

#### Dental Schools

**Rutgers Dental** -  
Gregory Beauzil  
**Howard Dental** -  
Christina Belgrave  
**U.Penn Dental** -  
Divya Trikanad

#### Allopathic Schools

##### RWJMS

Ashley Abbott  
Omowunmi Adedeji  
Ashley Brown  
Alowatoyin Dada  
Kwesi Dawson-Amoah  
Yousef Elfanagely  
Tori Gartmond  
Tito Mantilla  
Amanda Piedra  
Ka-Lisha Simons

##### NJMS

Dolani Ajanaku  
Janet Alvarez  
Gabriel Arismendi  
Kwame Awuku  
Carain Bonner  
Horace Brown  
Tolulope Oyetunde  
Andy Reyes  
Nicole Reynoso-Vasquez  
Michele Wright

##### Other Allopathic Schools

**Morehouse SOM** - Chidimma Acholonu  
**Lewis Katz (Temple)** -  
Shawn Admad Chaustre  
**Keck (USC)** - Shantee Grant\*,  
Bridgette Wamakima  
**Howard SOM** - Olivia Ike  
**U. Alabama SOM** - Hamelmal Kassahun  
**Trinity SOM** - Vaughn Powell  
**NYU SOM** - Ricardo Pulido  
**U.Penn** - Ruben Salazar  
**St. George's SOM** - Kevin Vasquez

#### Other Health Professions

##### Rowan - Masters

Ovie Enaohwo  
Jennifer Nunez  
Joseph Romero

##### NJCUC - Nursing

Stephany Caicedo  
Sashelle Vasquez

##### Other Allopathic Schools

**U. St. Augustine - PT** - Daniel Botros  
**Rowan - PT** - Raveena Dhruve  
**Columbia - PT** - Aimiosinor Igetei  
**Rutgers - PT** - Yealisha Kamara  
**NYCPM - Podiatry** - Jose Grullon  
**Temple - Podiatry** - Kevin Oshiokepkhai  
**Jefferson - Nursing** - Jasmine Vickers

# ODASIS

Office for Diversity and Academic Success in the Sciences



Mentorship of the next generation is part of what makes the ODASIS program so strong, along with our vital partnership with EOF. Dr. Kusum Punjabi, an ODASIS EOF alumna, mentored Hesbon Isaboke and Carolayn Munoz, both ODASIS EOF students who are matriculating this fall as members of the Rutgers-Robert Wood Johnson Medical School Class of 2023. Congratulations to both future doctors and Dr. Punjabi!

# RUTGERS

School of Arts and Sciences

Office for Diversity and Academic Success in the Sciences  
Division of Life Sciences  
Rutgers University–New Brunswick  
604 Allison Road  
Nelson Labs, Room A201  
Piscataway, NJ 08854-8000